The Mining Journal
RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 688.—Vol. XVIII. LONDON, SATURDAY, OCTOBER 28, 1848. [Price 6d.

Stannaries of Cornwall—In the Vice-Warden's Court.

COOMBE v. BICE.—BURGESS v. ALDERSON.

WHEREAS the VICE-WARDEN did, by an ORDER, or DECREE, made in the above-mentioned causes, and bearing date the 10th day of May last, Order and Decree that a SALE be made of the ORES and HALVANS, and (if necessary) the ENGINES, MACHINERY, and MATERIALS upon and belonging to ROCKS CONSOLIDATED TIN MINES, in the parishes of ROCHE and ST. AUSTELL, within the said Stannaries, under the direction of the Registrar of the Court, and that the proceeds of such sale should be applied by the said Registrar in the manner directed by the said Order or Decree.

Notice is hereby given, that, pursuant to the said Order or Decree, a PUBLIC AUCTION will be HOLDEN at ROCKS MINES aforesaid, on Wednesday, the 15th day of November next, and following day, at Eleven o'clock in the forenoon of each day, for SELLING, either together or in lots, the under-mentioned

MINING MACHINERY AND MATERIALS—viz.: 1

1 70-inch cylinder STEAM-ENGINE, without boiler.
1 40-inch cylinder DITTO, with two boilers, complete, and 18 heads of stamps.
A MACHINE for drawing tinstuff, with two 20-feet diameter iron fly-wheels, six inches round.
A WATER-DRAWING MACHINE, with 20-feet water-wheel, 3 feet abreast.
1 Capstan and shears, with 60 fathoms of 10-inch capstan rope, complete.
130 Fathoms of TRAMROAD IRON, and wood stands.
3 Horse-whims, with shaft tackle, complete; 70 fathoms of 6-inch by 7-inch flat-rods.
27 Fathoms 4-inch iron flat-rods, 1 large angle-bob, 1 small ditto, 1 9-inch plunger-pole and bottom, 7 fathoms of 12-inch plunger-lift, complete, 16 fms. of 12-inch plunger-lift, complete, several fathoms of 13, 12, 9, and 7-inch pumps, 1 8-inch and 1 6-inch working barrel, 7 fathoms of 9-inch main-rods, 116 fms. of 12-inch launders and stands, 14 fathoms of 2-inch iron bucket-rods, 7 buddles, with wood floors, 1 pair of yokes, 20 fathoms of 20-inch launders, and 10 fathoms of 5-inch ditto, 70 fathoms of 6-inch rope, with a wood-built house, and other machinery, complete, 30 fathoms of whim-rope, 35 fathoms of 4-inch rope; 10 fathoms of 4-inch ditto, 10 fathoms of 3-inch ditto, 2 single iron blocks, 2 double ditto, 1 treble ditto, handscrew, several fathoms of iron chain, 2 smiths' anvils, 1 smith's vice, smiths' horse, 3 pump buckets, 1 40-inch smiths' bellows, a quantity of brass, beam and scales, and weights, screwing tools and block, 10 sieves and 4 bottoms, horse-whim kibbles, wheelbarrows and handbarrows, tramroad waggon, 2 bucket-joints, mandril, 3 or 4 tons of old iron, and about 6 tons of cast-iron, a large number of pulleys and frames, a lot of smiths and miners' tools.

Also, the ACCOUNT-HOUSE FURNITURE, together with a large quantity and great variety of other materials in general use in mines.

For viewing the same, application may be made to Mr. M. Teague, on the mine; and for further particulars (if by letter, pre-paid) to Mr. Chilcott, solicitor, Truro; or to Mr. Stokes, solicitor, Truro.

Dated Registrar's Office, Oct. 20, 1848.

POWERFUL STEAM-ENGINE, TWO WATER-WHEELS, AND MINE MATERIALS, FOR POSITIVE SALE.

MR. F. A. DAVIS will SELL, BY AUCTION, on Tuesday, the 31st day of October, 1848, at Twelve o'clock at noon, at WHEAL MARTHA MINE, at LUCKITT, in STOKECLIMSLAND, the under-mentioned 2

MATERIALS AND MACHINERY OF THE SAID MINE.

Comprising—14 9-feet 11-inch pumps, 3 9-feet 9-inch ditto, 1 3-feet 9-inch ditto, 2 9-feet 10-inch working barrels, 1 10-inch door-piece, 1 14-inch plunger-pole and case, stuffing-box and gland brass bushed, 1 9-inch plunger-pole, lot of chain, 40 fathoms 1¼ rods, pullies and stands, 2 balance-bobs, with bearings and brasses, 4 sweep rods with caps, double and single checks, staples and glands of different sizes, lot of hammered and crown iron-plates and caps, whim sheaves, windlass, 2 winze kibbles, 1 2¼-inch iron-rod, beam, scales, and weights, 2 7-inch bend pipes, 1 30-inch and 1 40-inch smith's bellows, about 3 cwts. of powder, several brass bottoms, lot of ladders, smith's horse, vice, pick moulds, smith's crane, a quantity of rod bolts and burs, pump rings, &c., miners tools, door hinges, new and old iron, miners and smiths' chests, barrows, &c.; water barrels, shovel hilts, sieves, leather, &c., a large quantity of timber, composing several houses and sheds, carpenters' benches, saw-pit frames, &c., &c.

TWO WATER-WHEELS, one 40 feet diameter, 4 feet breast, and one 30 feet diameter, 3 feet breast—both having cast-iron rings, sockets, and cylinder ends, and in excellent condition.

Also, a very powerful STEAM-ENGINE (nearly new), on the combined principle of Messrs. Harvey, and Co., from the drawings of Mr. William West, with 60 and 32-inch cylinder, equal to 141-horse power, with a boiler, 9 tons.

The mine is situate about 4 miles from the quays on the navigable River Tamar, where shipment can at all times be procured.

Refreshments punctually at Eleven o'clock.

County Fire and Provident Life Offices, West-street, Tavistock, Oct. 11, 1848.

VALUABLE COLLIERY MATERIALS FOR SALE, AT ORRELL COLLIERY, NEAR WIGAN.

The under-mentioned MATERIALS are in good working condition, and are now OFFERED FOR SALE, BY PRIVATE TREATY—the proprietors having completed the winning of one of their collieries, and have no further use for them:— 3

1 14-horse HIGH-PRESSURE BEAM-ENGINE, with boiler, nearly new.
1 14½-inch RAM, } 8 feet stroke, with plunger-pole, clacks, and clack-pieces, all
1 14-inch ditto } complete.
1 14-inch working barrel, 9-feet stroke, with bucket and clackdoor-pieces, quite new.
1 12½-inch working barrel, } 8 feet stroke, with bucket and clack-pieces, spare buckets
1 11-inch ditto } and clacks—complete.
1 5-inch ditto with gland, stuffing-box, side pipes, all complete, and nearly new—stroke 8 feet.
1 4-inch ram, 2-feet 6-inch stroke, with clack-pieces, &c.
5 Malleable iron oftake joints, for pump-rods.
1 11-inch clack-piece.
2 Windbores, for sinking pits—11 inches diameter.
140 Yards of 13-inch pump stocks, with bolts, rings, &c.
1 Wooden cistern for ram, 8 feet deep, 5 feet 7 inches square inside.
1 Ditto ditto, 7 feet deep, 5 feet square inside.
1 17-inch STEAM CYLINDER, 4 feet stroke.
1 Pair of 10-feet pulleys, for flat-ropes—new.
8 Cast-iron stands, for head gear—1 Old boiler, about 2 tons.
1 10-horse CYLINDRICAL BOILER—good.
Air-pump and condenser for 10-horse engine.
1 Pair of gin pulleys, 3 feet diameter.

Walthew House Colliery Office, Oct. 25, 1848.

TWO VALUABLE COAL MINES IN DEAN FOREST, In the township of EAST DEAN, in the county of GLOUCESTER, TO BE SOLD, BY PRIVATE CONTRACT. 4

These COLLIERIES are most desirably situated at CINDERFORD BRIDGE and RUSPIDGE MEEND CLOSE, adjoining the Bull's Pill line of railway, near to the Cinderford Iron-Works, and contiguous to the intended locomotive line of railway; and are awarded and galed to the Hill Delf, or Coleford High Delf Vein of Coal—which seam of coal is now in work, and proved to be from 5 to 6 feet in thickness, and of excellent quality for household consumption, iron-works, locomotive or stationary engines, &c.; and for many other purposes is unexceptionable, and cokes into excellent cinder, and is pronounced to be the best, and to give out the most uniform heat of any coal yet used in Dean Forest.

LOT I.

THE CINDERFORD BRIDGE COLLIERY,

Comprising about 100 acres of MAIDEN, or UNWORKED, COAL, which was awarded by the Dean Forest Mining Commissioners in the year 1841, to the late Mr. J. Cowmeadow.

At this colliery there is a shaft, 10 feet by 8 feet in diameter, sunk down about 30 yards, and might, at a moderate expense, with a steam-engine, be very soon brought into operation.

LOT II.

THE CELESTIAL, OR GAS COAL, COLLIERY,

Is situated by the side of RUSPIDGE MEEND, and running under Little Stapledge Inclosure, adjoining to Lot I., and on the deep side thereof, containing about 100 acres.

For particulars and treaty, apply to the proprietress, Mrs. Cowmeadow, Victoria Hotel Cinderford; or to Mr. P. Robinson, land and mineral agent, Hill House, Littledean, where a map of the property may be seen.—Particulars of title may be ascertained at Mr. Atkinson's, Deputy Gavellers' Office, Coleford.

VAUXHALL FOUNDRY, LIVERPOOL—TO CLOSE A PARTNERSHIP.—TO BE SOLD, the whole of that valuable PROPERTY, known as the VAUXHALL FOUNDRY, VAUXHALL-ROAD, LIVERPOOL, consisting of upwards of 5500 yards of freehold, and 3000 yards of leasehold, land (75 years, at a low ground rent), with all the VALUABLE WORKSHOPS, MACHINERY, TOOLS, MODELS, &c. &c. 5

The PREMISES are all of the most substantial and convenient description, and the MACHINERY and TOOLS are of the most approved construction, adapted to the manufacture of the largest description of steam-engines, and every variety of machinery.

The valuable STOCK of MODELS have been all made within the last 20 years, and comprise all those requisite for the carrying on an extensive business.

To any parties of capital, this will be found a singularly desirable opportunity, as the works are in full operation—the reputation of the place established, and the business connections of the highest class.

For further particulars, apply to Messrs. Laces, Myers, Rigge, and Roscoe, solicitors, Liverpool.—If not sold by private treaty, the whole will be offered by public auction in the month of April, 1849, of which due notice will be given.

Liverpool, Oct. 19, 1848.

LAP-WELDED IRON TUBES, W. H. RICHARDSON, Jun., and CO., MANUFACTURE every description of WROUGHT-IRON TUBES, for Locomotive and Marine Boilers, Gas, Steam, and other purposes. 6

PATENT TUBE WORKS, *DARLASTON, STAFFORDSHIRE.*

IMPORTANT SALE of a valuable 70-inch cylinder ENGINE and MINING MATERIALS, with such INTEREST as the present proprietors may have in the SETTS of WHEAL CURTIS and WHEAL ABRAHAM, situate in the parish of CROWAN, in the county of CORNWALL, which is OFFERED FOR SALE, BY PRIVATE CONTRACT, in consequence of the inability of some large shareholders to advance the calls upon the shares held by them. 7

The MACHINERY has only recently been purchased, and is most efficient, the shafts newly timbered, and a comparatively small outlay will suffice to open the acknowledged rich ore ground—a more desirable investment is seldom offered to the public. Should the purchaser wish it, several of the present adventurers will readily unite with him in working the mine effectually.

Tenders for the entire mine, or for the engine and machinery alone, will be received (prepaid) by Mr. George A. Jacob, Basinghall-chambers, Basinghall-street, London, until the 30th day of October instant.

For viewing the mine and machinery, application to be made to Mr. G. A. Jacobs, as above; Messrs Hodge and Hockins, solicitors, Truro; or Mr. J. G. Plomer, solicitor, Helston.—The proprietors will not be bound to accept the highest tender.

Basinghall-chambers, Basinghall-street, London, October 12, 1848.

FOR SALE, BY PRIVATE CONTRACT—A single-acting PUMPING-ENGINE—cylinder 30-inch diameter, 9-feet stroke, equal beam, with 7-ton boiler, cisterns, spring beam, and first set of rod-shafts attached, being the engine of Wheal St. Cleer.—For particulars, apply to Capt. Osborne, Liskeard; Mr. West, engineer, St. Blazey; or Mr. Rendle, the purser, 13, Octagon, Plymouth. 8

FOR SALE, BY PRIVATE CONTRACT, a capital 40-inch cylinder STEAM-ENGINE, made by West, nearly new, and in perfect condition, with 10-ton boiler.

An excellent 38-inch cylinder STEAM-ENGINE, in good condition, with 8-ton boiler.

Also, a CAPSTAN, with oak axle.

120 fathoms of 11-inch capstan-rope, shears, balance-bob, and horse-whim.

For further particulars, apply to Mr. James Wolferstan, Beeralstone, Devon. 9

TO CONSUMERS OF GAS.—The PATENT GAS-LIGHT MONITOR—ADAPTED to EVERY DESCRIPTION of BURNER, and SUPPLIED at a COST placing it within the REACH of EVERY CONSUMER—regulates the flame of gas-lights to any required height—economising the consumption, and preventing the danger and inconvenience arising from the flaring of lights. 10

PATENTEE'S OFFICE, 20, KING-WILLIAM-STREET, CHARING-CROSS.

NEW GAS-WORKS.—The Pavement Commissioners of the TOWN of HERNE BAY will MEET on MONDAY, the 6th day of November next, at Ten o'clock in the forenoon, at the PIER HOTEL there, to RECEIVE TENDERS for the ERECTION, at the proposer's own expense or otherwise, of GAS-WORKS, LAYING DOWN MAINS, and for SUPPLYING the TOWN with GAS. 11

Further particulars to be obtained of Dr. Stokes, Herne Bay.

THOS. THORPE DE LASAUX, Clerk to the said Commissioners.

GENERAL TELEGRAPH COMPANY.—This company are now prepared to undertake the EXECUTION, by CONTRACT or OTHERWISE, of the most approved ELECTRIC, HYDRAULIC, PNEUMATIC, and MECHANICAL TELEGRAPHS.—Particulars of which may be ascertained by application at the company's temporary offices, 6, Gray's Inn-square, London. 12

FRANCIS WHISHAW, } General
NATHL. J. HOLMES, } Managers.

TIMBER PRESERVING COMPANY.—(PAYNE'S PATENTS FOR THE PRESERVATION OF TIMBER AGAINST DRY ROT, FIRE, RAVAGES OF WORMS, &c. 13

The above company are ready to ENTER into ARRANGEMENTS for the PREPARATION OF TIMBER, at any of their under-mentioned stations—viz.:

Whitehall Wharf, Westminster	Barnstaple	Guildford
Fleetwood-on-Wyre	Leicester	Southampton
Wisbeach	Lynn	Hartlepool
Gateshead	Staines	Darlington

And they will erect the necessary apparatus, wherever there is a considerable quantity of timber to be prepared.—Further particulars, with prices, may be obtained at the London Works, Whitehall Wharf, Cannon-row, Westminster.

RIDER'S RAILWAY BRIDGE.—TO RAILWAY COMPANIES.—This BRIDGE has now been for 18 months in DAILY USE (having a double track) on the HARLEM RAILWAY, in the State of New York, United States. The Erie Railway and the Newhaven Railway Companies have likewise adopted it. 14

Several other bridges, for ordinary purposes, are also being constructed.

The advantages of this over all other iron bridges hitherto invented, consist in the small amount of iron required, compared with the strength obtained, in avoiding the use of any surplus weight of material, in the consequent economy of its construction, and also from its lightness, easy mode of putting together, and facility of transport, in its peculiar adaptation for foreign use.

As regards ecouomy, it can be erected at a cost not exceeding that of a WOODEN BRIDGE, of equal capability.

Applications to be made to Mr. Moulton, the patentee, Bradford, Wilts.

BRISTOL AND EXETER RAILWAY.—CALL of FIVE POUNDS PER SHARE—being the Fourteenth Instalment, and making, with former calls, the sum of £290 per share. 15

The directors of this company, under the provisions of the Act of Parliament, hereby give Notice, that the proprietors of £100 shares are required to PAY, on or before the 30th day of October next, at any of the under-mentioned banks, the sum of FIVE POUNDS on each of their respective shares—viz.:

LONDON—Messrs. Glyn, Halifax, and Co.
LIVERPOOL—The Bank of Liverpool.
MANCHESTER—Messrs. William Jones, Loyds, and Co.
BRISTOL—Messrs. Miles, Harford, and Co.
Messrs. Baillie, Ames, and Co.
Messrs. Stuckey and Co.
The West of England and South Wales District Bank.
The National Provincial Bank.
EXETER—The Devon and Cornwall Banking Company.
The West of England and South Wales District Bank.
The National Provincial Bank.
Messrs. Sanders and Co.

} Or at either of their branches.

The bankers are instructed to *charge* interest, at the rate of 5 per cent. per annum, on all arrears, and to *allow* interest, *at the same rate*, on payments in anticipation of calls.

By order of the directors, J. B. BADHAM, Secretary.

Office, 30, Broad-street, Bristol, Sept. 27, 1847.

BRISTOL AND EXETER RAILWAY—THIRD SHARES.—CALL of TWO POUNDS TEN SHILLINGS per THIRD SHARES—being the Seventh Instalment, and making, with former calls, the sum of £27 10s. per third share. 16

The directors of this company, under the provisions of the Acts of Parliament, hereby give Notice, that the proprietors of Third Shares are required to PAY, on or before Monday, the 30th of October next, at any of the under-mentioned banks, the sum of TWO POUNDS TEN SHILLINGS on each of their respective Third Shares:—

LONDON—Messrs Glyn, Halifax, Mills, and Co.
LIVERPOOL—The Bank of Liverpool.
MANCHESTER—Messrs. William Jones, Loyds, and Co.
BRISTOL—Messrs. Miles, Harford, and Co.
Messrs. Baillie, Ames, and Co.
Messrs. Stuckey's Banking Company.
The West of England and South Wales District Bank.
The National Provincial Bank.
EXETER—The Devon and Cornwall Banking Company.
The National Provincial Banking Company.
The West of England and South Wales District Bank.
Messrs. Sanders and Co.

} Or at either of their branches.

Who are instructed to *charge* interest, at 5 per cent. per annum, on all arrears, and to *allow* interest, *at the same rate*, on payments in anticipation of calls.

By order of the directors, J. B. BADHAM, Secretary.

Office, 30, Broad-street, Bristol, Sept. 27, 1848.

CALEDONIAN RAILWAY.—Notice is hereby given, that an EXTRAORDINARY MEETING of the company will be HELD within the Euston Hotel, Euston-square, London, on Friday, the 10th day of November, 1848, at Twelve o'clock noon precisely, for the purposes following—viz.: 17

1. To receive and consider a report of the directors.

2. To consider and determine as to entering into a joint-arrangement with the Edinburgh and Glasgow Railway Company for leasing or purchasing, and for working the Scottish Midland Junction Railway, upon the terms to be submitted to the meeting, or such other terms as may be agreed upon.

3. To consider and determine as to proposed modifications of the existing agreements entered into by this company with the Scottish Central and Dundee Perth and Aberdeen Junction Railway Companies, to the effect of admitting the Edinburgh and Glasgow Railway Company as a party to the arrangements with these companies, and as joint-lessees and co-obligants, upon the terms to be submitted to the meeting, or such other terms as may be agreed upon.

By order, J. J. H. JOHNSTONE, Chairman.
J. W. CODDINGTON, Secretary.

Caledonian Railway Office, Edinburgh, Oct. 25, 1848.

TO RAILWAY DIRECTORS AND SHAREHOLDERS.

This day, price 6d.

RAILWAY PROPERTY AS IT IS, AND RAILWAY PROPERTY AS IT SHOULD BE: or, an Examination into the Causes of its Depression, and Means necessary to retrieve it. 18

BY A MEMBER OF THE INSTITUTION OF CIVIL ENGINEERS.

London: Effingham Wilson, publisher, 11, Royal Exchange.

PITWORK WANTED.—Any Parties having for DISPOSAL a QUANTITY of 12 or 13-inch WROUGHT-IRON PUMPS, are requested to send full particulars thereof, addressed to "E. B.," *Mining Journal* office, 26, Fleet-st., London. 19

SECRETARY AND MANAGER WANTED.—The Governor, Deputy-Governor, and Court of Assistants of the MINES ROYAL COPPER COMPANY give notice, that in consequence of the RETIREMENT of their SECRETARY and MANAGER, they are prepared to ELECT a GENTLEMAN to FILL the VACANCY. It is essential that any candidate for the appointment should be of active business habits, have a facility in correspondence, a complete acquaintance with accounts and office routine, and be possessed generally of an accurate knowledge of mercantile affairs, more especially of the copper trade. A liberal salary will be allowed. Security will be required. Written applications, with testimonials, must be sent on or before the 7th day of November next, addressed "To the Governor" (marked private), Mines Royal Copper Company, Dowgate. 20

WANTED, a PARTNER, in a FIRST-RATE COLLIERY, in SOUTH WALES, who can command a capital of from £2000 to £3000.—To any respectable party having the required amount—none other need apply—the present opportunity will be found to offer advantages seldom to be met with.—For particulars apply, with real name and address, to No. 10, Post-office, Newport, Monmouthshire. 21

MINING IN AUSTRALIA.—A GENTLEMAN, who has resided many years in Australia, and has had some years experience in mining, OFFERS his SERVICES to a COMPANY in EXPLORING an UNINHABITED TRACT of COUNTRY in that COLONY, of immense area, abounding in MINERAL, and distant only 140 miles from coal, to which there is access by water. The Advertiser feels confident, from his own observations, to be able to show that results of immense value will be realised by the first explorers of this region.

Communications addressed (pre-paid), in the first instance, to "M. W. S.," at the office of the *Mining Journal*, 26, Fleet-street, London.—Oct. 17, 1848. 22

MINING IN AUSTRALIA, NORTH AMERICA, &c.—A GENTLEMAN, of high standing in his locality, who has been for the last 15 or 20 years a large adventurer in the mines of Cornwall—with the nature of which, and with the whole procedure for their working, he is thoroughly acquainted—experienced also in commercial affairs, in which he is competent to undertake a French, Italian, or Spanish correspondence—would be willing to enter upon an ENGAGEMENT to SUPERINTEND a MINING COMPANY in AUSTRALIA, or elsewhere; or to TREAT with any gentleman for the FORMATION of a MINING COMPANY at the former, he himself being ready to bring some capital into such undertaking. As the advertiser will be prepared to tender the highest references in respect of himself, no proposals can be entertained but such as are of first-rate respectability.—Apply per letter (pre-paid), addressed to "A. M. A.," care of the Editor of the *Mining Journal*, 26, Fleet-street, London. Sept. 11, 1848. 23

MINERAL PROPERTIES AND ESTATES.—Mr. HENRY ENGLISH begs to intimate to the PROPIETORS of MINES and MINERAL PROPERTIES, as also to ADVENTURERS in MINES, that REPORTS and SURVEYS, with PLANS and SECTIONS, illustrative thereof, will be FURNISHED by him, being aided by agents in the various mining localities, of undoubted practical knowledge and experience. Information or advice rendered on all points touching mining pursuits, which Mr. H. English feels himself competent to afford, as the result of his personal investigation and inquiries during several years of his connection with the several mining districts.—Estimates given for exploring or proving mining ground, as also the machinery requisite, with drawings. 24

OFFICES—No. 25, FLEET-STREET, LONDON.

MINING INVESTMENT.—Captain JOHN HAMBLY, of GUNNIS LAKE, CALSTOCK, CORNWALL, being advantageously located is the centre of the mining districts of Cornwall and Devon, and having made arrangement for PURCHASING and SELLING MINING SHARES, &c., on COMMISSION, begs to OFFER his SERVICES to his FRIENDS and the PUBLIC generally. 25

J. H. having been a mine agent for 20 years in the said counties, and having a practical knowledge of mining (for which the necessary testimonials can be produced, if required), will give the fullest information in his power (without charge), and a survey, or inspection, would be made of any mining property, by himself, on moderate terms.

VALUABLE AND SAFE INVESTMENTS.—Mr. H. B. RYE invites the attention of his friends and the public generally to the following MINING INVESTMENTS, and will be pleased to give every LOCAL and OTHER INFORMATION respecting them, on personal application, or by letter (post-paid), at his office, 77, OLD BROAD-STREET, CITY:— 26

Mines.	No. of Shares.	Nominal price per Share.	Dividend p. share per annum at lowest estimate.
East Wheal Rose	128	£750	£200
Wheal Seton	99	675	90
North Pool	100	475	90
South Wheal Francis	124	215	30
Wheal Margaret	172	200	30
Devon Great Consols	1024	200	30
South Wheal Basset	128	125	30
Trevisksy and Barrier	120	85	18
Trehane	256	23	6
Cobre Copper	10000	15	2

MINING OFFICES—Established Five Years.—THOMAS P. THOMAS begs to inform his friends and the public, that he has REMOVED from No. 18, Threadneedle-street, to No. 3, GEORGE-YARD, LOMBARD-STREET, LONDON (late Messrs. Phillips and Tiplady's). 27

N.B.—Dealer in English and Foreign Funds, Mining, Railway, Gas, and other shares.

MINING OFFICES, THREE KING'S COURT, LOMBARD STREET, LONDON.—Messrs. R. TREDINNICK & CO. beg to draw the attention of capitalists to the DEPRESSED MARKET VALUE of SHARES in ENGLISH and FOREIGN MINES, many of which pay dividends of from 20 to 30 per cent. per annum, whilst those on the eve of so doing are selling at corresponding low prices. 28

Statistical information gratuitously, and money advanced upon the above securities.

MR. R. TREDINNICK, THREE KING'S COURT, *LOMBARD-STREET, LONDON.* 29

Continues to DEAL in every description of MINING, RAILWAY, BANKING, INSURANCE, CANAL, and OTHER SHARES.—Statistical information afforded gratuitously, upon personal application.—MONEY ADVANCED upon the above securities.

MR. C. S. RICHARDSON, CIVIL ENGINEER, LAND AND MINING SURVEYOR, 5, *WHITEFRIARS-STREET, LONDON.* 30

JAMES LANE, MINING SHARE DEALER, 80, *OLD BROAD-STREET, LONDON.* 31

ASTURIAN MINING COMPANY.—The board of directors hereby give Notice, that they have made a further CALL of ONE POUND per share upon the shares in the capital stock of this company, and that such call is PAYABLE at the London and County Bank, Lombard-street, on or before the 21st day of November next. 32

By order of the board,
K. MACKENZIE, Secretary.

Offices of the Company, No. 9, Austinfriars, Oct. 20, 1848.

ASTURIAN MINING COMPANY.—Notice is hereby given, that, at a Special Meeting of the shareholders, held here this day, it was resolved,—That all SHARES in ARREAR of the LAST CALL, due on the 1st of July and 1st of August last, shall be ABSOLUTELY FORFEITED, unless PAID upon, with INTEREST, on or before the 1st day of Nov. next. 33

By order of the board,
K. MACKENZIE, Secretary.

PENNANT AND CRAIGWEN CONSOLIDATED LEAD MINING COMPANY.—Notice is hereby given, that the COMPANIES heretofore known as the PENNANT LEAD AND COPPER MINING COMPANY, and the CRAIGWEN LEAD MINES COMPANY, are now AMALGAMATED, under the above denomination.—The Cost-book, under the amalgamation, lies for signature at the offices of the company, 57, Threadneedle-street, where prospectuses, and every information, may be obtained.—Oct. 9, 1848. WILLIAM W. MANSELL, Purser. 34

PENNANT AND CRAIGWEN CONSOLIDATED LEAD MINING COMPANY.—Notice is hereby given, that the directors are ready to RECEIVE TENDERS for the WORKING, either on tribute or by contract, of a valuable DEPOSIT of IRON PYRITES, wholly free from arsenic, and also of UMBER, of the finest description and colour; also to supply large or small quantities of both articles. 35

Specimens may be seen at the offices, 57, Threadneedle-street; or at the wharf, 332, High-street, Wapping.—Oct. 9, 1848. WILLIAM W. MANSELL, Purser.

NOTICE IS HEREBY GIVEN, that the OFFICES of the PENNANT LEAD AND COPPER MINING COMPANY—now amalgamated with the Craigwen Lead Mines Company—and also of the TIN VALE MINING COMPANY, are REMOVED to 57, THREADNEEDLE-STREET, CITY, where it is requested all communications may in future be addressed. 36

Oct. 9, 1848. WILLIAM W. MANSELL, Purser.

REAL DEL MONTE MINING COMPANY.—The HOLDERS of LOAN NOTES or DEBENTURES of this company are requested to MEET at the OFFICE, 2, Duke-street, Adelphi, on Monday next, the 30th October inst., at One o'clock precisely, previous to the adjourned general meeting of the shareholders. 37

By order, JOHN PHILLIPS, Secretary.

THE IRON MANUFACTURE OF SOUTH WALES.*

1. *On the Use of Hot Air in Iron-Works.* By Dufrenoy. Translated into English.
2. *Papers on Iron and Steel.* By D. Mushet. 8vo.—1840.
3. *A Comprehensive History of the Iron Trade.* By H. Scrivener. 8vo.—1841.
4. *Report of the Commissioner appointed under 5 and 6 Victoria, c. 99, to Inquire into the State of the Population of the Mining Districts.* Presented to both Houses. 1846.

The alchemists were widely mistaken in their estimate of the values of the several metals. They extolled the virtue of "Sol," the mild lustre of "Luna," the extensive mutability of Saturn, but they knew not that Mars, though vile in price, and despised by reason of his numerous offspring, was good for medicine, for defence, for ornament, for instruments for the work of man, all-powerful in war, nor less necessary to the arts of peace.

Webster, an old mystical metallurgist, observes—"There hath been found by experience a living tree, the root whereof extendeth to the centre of the earth, and thence taketh nourishment of increase, and the same by all ways spreadeth and springeth from the root by the soft pores and passages of the earth, putting forth branches even to the uttermost part of the world, and ceasing not until it discovers itself unto the open air, showing round stones of earth in the stead of fruit, and thin plates thereof in the stead of leaves." The existence of this tree, the dream of Paracelsus and his school, has, indeed, been fully established, its value is vouched by its universal acceptance, but the fruit which the "great elixir" of industry has placed within the reach of all, is not "gold" but "iron." Iron ore is the true philosopher's stone. The metal is not only in the highest degree useful when discovered, but it has the additional merit of requiring considerable labour and skill for its discovery. The benefits are great, and they are earned. In her possession of iron and of coal England stands high in the roll of nations; in her employment of those minerals she has long stood far above all. In money value her export trade of unmanufactured iron ranks next after the manufacture of cottons, linens, and woollens; but the importance of the iron trade to the country it is scarcely possible to estimate too highly.

The iron trade of South Wales very much surpasses in magnitude that of any other district of the United Kingdom. The seat of the manufacture is also placed in a highly picturesque country, upon a border abounding in traditions, where the Celts and Saxons were long in conflict, and still are but imperfectly united, and is thus invested with a description of interest which seldom attaches to any manufacturing or commercial operation, however important in other respects. Hence, on the present occasion, although we shall refer sometimes to the general iron manufacture of the empire, our observations will, for the most part, be drawn from, and have a special reference to, South Wales.

The traveller who enters South Wales from the English border, by the way of Ross and Abergavenny, cannot fail to be impressed by the transition from the smiling scenery of the Wye to the sullen gloom of the valley of the Upper Usk, and finally, by the change from both of these to the bleak and sterile district over which the route is continued from Abergavenny to Merthyr Tydvil. Well says the old saw,

"Blessed is the eye
Between Severn and Wye."

Gwent ("the shining land"), or Monmouth, was the very Goshen of the Cymri, until rent from the Principality by the rude Parliamentary grasp of Henry VIII. It is a shire of villas and gardens, of sunny nooks and pleasant smiling meads; here an old-fashioned grange with its well-stocked homestead, and there a venerable parish church with its old yew tree and attendant cross; or an occasional border tower or castle, whose broken ivy-covered wall, and moat converted into pasture, present even more decisive pledges of peace. The vale of the Usk, at Abergavenny, is formed in a spur of the great chain of the Brecon Beacons, and is hemmed in with mountains immediately subordinate to the Skerrid-fawr and Sugar-loaf. These rise abruptly on either side of the town of Abergavenny, with a grandeur in perfect harmony with the castle of the last of the "Nevilles," the seat of one of the oldest baronial tenures in Britain. Their principal merits, however, are of a picturesque character, for they are neither covered with the fertile soil of the English border, nor do they contain the yet more valuable mineral wealth of the Welsh side. A few miles west of Abergavenny, the road passes through the first cluster of iron-works, and ascending the narrow valley of the Clydach, "*primis in faucibus Orci*," enters upon a summit or table land of considerable elevation, occupying much of the space between Abergavenny and Merthyr, and a district of almost African sterility. But Nature has bestowed upon this barren waste a wealth denied to more attractive spots, and such as it is the lords would be loth to barter it, acre for acre, against the richest pastures of the Severn or the Wye. Towards evening, a dusky red hue begins to be apparent in the sky, and an incumbent atmosphere of smoke and vapour receives and reflects, for many miles around, the glow of the subjacent furnaces. Even at a distance of eight or 10 miles in advance, the fires of Merthyr, the great Pandæmonium of the district, are apparent, and terminate in a broad belt of light, extending from the east, and reflected for many miles from the sky, above a range of lesser, though more numerous works. As the road passes more or less near to, or occasionally through, some of these groups of works, it is alternately lighted up and darkened by the light and shade from the furnaces; black objects, like the dæmons of the Hartz, magnified in the gloom, are seen to move athwart the flame, and the deep roar of the blast-engine, with the unearthly whistle of the locomotives, are mixed up with the rattle of the machinery, and the clang of the iron, as it is dragged to and fro to undergo the various processes of its manufacture. Such is the scene, "rivalling," in the language of a native bard, "the whistling of the wind, the dashing of the wave, and the dint of the thunder," through which the Sassenach stranger enters that rich mineral district of Monmouth and Glamorgan, and whence a supply of some 400,000 tons of iron is annually conveyed to the sea.

The South Wales mineral district has been estimated to include an area of about 1000 square miles. Its greatest breadth is about 25 miles; its extreme length, from Pembrey to Pontypool, is nearly 120 miles; and new works are annually springing up, especially in the western district. The eastern division, that longest worked, from the works of Hirwain and Aberdare on the west, to those of Pontypool on the east, does not exceed 25 miles, although including upwards of 26 clusters of works, the smoke of whose furnaces by day, and their fiery canopy by night, are all distinctly visible from the summits of the Brecon range. Our geological readers will pardon us, if in consideration of those who may not yet have made acquaintance with the youngest and most popular of the "ologies," we attempt very briefly to set forth the mineral features of that part of Glamorganshire in which iron has hitherto been found and worked.

The old red sandstone is the oldest and lowest in geological order of the Glamorganshire rocks. It forms the shell, or basin, within which the other formations are disposed, and it rises upwards towards the north, to constitute a part of the great Brecon chain, and southwards towards the sea near Llandaff and Cardiff. The soil of this rock is not very productive, nor are the features of its scenery striking or beautiful. It contains no minerals and few fossils, and is chiefly interesting from its connection with the Silurian rocks. Upon the old red sandstone rests the mountain, or coal-bearing, limestone, which covers the southern flank of the Beacons, near Merthyr, and passing under the coal-field, rises up towards the south to form a part of the ridge, or crest, that divides the hill country from the plain. This rock contains here a little lead, is of great use in the manufacture of iron, forms excellent roads, burns into the lime manure of agriculture, and is almost wholly composed of organic remains. It is intersected by various ravines and gorges of uncommon beauty, among which may be mentioned the fall of Pont Sarn, near Merthyr, and the celebrated pass of Castel-Coch on the Taff, a few miles above Cardiff. The basin thus formed of old red sandstone, and lined with carboniferous limestone, is filled up, speaking generally, with the sandstones of the coal, interstratified with certain beds called coal measures, within which the coal and ironstone are found.

The coal measures are disposed in two grand masses; the *lower* lying at no great distance above the limestone, and, in consequence, most readily accessible towards the margin of the basin; and the *upper* placed higher in the series, and nearer, therefore, to its centre. Now, the ironstone, or ore, whence the metal is to be extracted, lies almost entirely near the lower coal, and as this happens to be of a better quality, and more accessible towards the north, the general line of iron-works, including the town of Merthyr, is ranged along its uprising, or outcrop, just within the northern edge of the basin. Thus the ironstone, coal, and limestone—the three ingredients employed in the reduction of the metal—are placed most conveniently within a very short distance of each other. To this convenience, the geological accidents and irregularities of the district, and the manner in which its surface is moulded, have also been made remarkably subservient. The coal strata are thrown up by a series of dislocations, or faults, and the surface of the country is so broken and intersected by deep valleys, that both coal and ironstone are commonly obtained, and the mines at the same time drained, by tunnels, or levels, driven into the face of the hill, instead of, as in the northern field, by shafts, or pits, at a great and expensive depth. In the coal-fields of the north, shafts of from 200 to 400 yards deep are by no means uncommon; and at "Pemberton's pit," near Sunderland, the coal is actually raised at one lift 560 yards; whereas, in South Wales, a shaft of above 150 yards is rare, and quite as frequently sunk for purposes of ventilation, as for that of raising the minerals. At Dowlais, where the annual consumption of coal and ironstone has certainly for many years been not less than 500,000 tons, not above one-fourth part is lifted in shafts, the bulk being run out upon the face of the hill by railways. The same valleys which thus render the minerals accessible, are scarcely less useful in giving facility of transport to the manufactured metal. Each of the principal iron-works stands at the head of a valley, down which, by canal or railway, its produce reaches the sea. Merthyr, itself, is placed upon the Taff, and communicates down its picturesque valley directly, both by canal and railway, with the sea, by the port of Cardiff. The ancient history of the Merthyr district gave little promise of its present wealth and population. Tydvil, the sister of Rhun Dremrudd, was the daughter of Brychan, the Celtic Christian prince of Garthmadrin. Pagan Saxons, from Loegria, burst into the peaceful valley, carried fire and sword into its recesses, and ruthlessly slaughtered the virgin with her kinsfolk. A future age erected a church to the memory of the event, and the village took the appropriate name of "Tydvil the martyr," or "Merthyr Tydvil." Such is a legend of the Cambrian martyrology, and the foundation of the history of the district, "of which (as old Fuller observes) every may believe his proportion."

Shortly after the Norman conquest, Fitz-Hamon, son of Hamo dentatus, or "the fanged," and the near kinsman of the Conqueror, entered Glamorgan, dispossessed and slew the native princes, and, by the right of the sword, established himself and his twelve paladins along the lower and more fertile country. The Vale of Taff, including the district of Merthyr, its various tributary valleys, and the spacious plane of Cardiff, formed the lion's share of the territory thus acquired. The lion, however, planted himself in the champaign country of the Lower Taff and the Rhymney, and exercised but a nominal sway over the less accessible parts of his conquest. The De Clares and De Spensers, successors in his blood and domains, in like manner, confined their protection to the pastures of the plain. The native spirit was bent or broken, and the confirmed and extended privileges of the Cathedral of Llandaff secured, as usual, the sanction of the Church to the cause of the strong hand.

At this period, the wealth of the upper country seems not to have been suspected; and although Morlais, an Edwardian hill castle of considerable extent, was erected, and still remains upon the northern frontier of the district; this was intended rather to protect the distant plains of Cardiff and Caerphilly, or perhaps the margin of meadow between the river and the mountain, against the incursions of the Welsh, than from any notion of the intrinsic value of the upland territory. When, in the leading of the English vanguard, the last Earl Gilbert closed the line of De Clare upon the field of Bannockburn, he died in ignorance of the vast armoury of war, sword, spear, and panoply, that lay unsunned and unfashioned in the bowels of his Cambrian domain.

From the De Spensers these estates descended to the Beauchamps and the Nevilles, with rather more than the usual share of forfeitures, escheats, and other feudal incidents; until, having finally become the property of the Crown, the whole passed, at the field of Bosworth, to Henry VII., who afterwards divested himself of them in favour of William Herbert, first Earl of Pembroke, of the new creation, and natural son of William, a previous earl. The heiress of the Herberts carried the property to the Windsors, by marriage with one of whose co-heiresses the Marquis of Bute became possessed of the principal moiety and chief seat of the ancient estates, which are still enjoyed by his descendant, the present nobleman; the remainder being the property of Mr. Clive, as representing the other co-heiress. The mineral resources of the country came into operation by very slow degrees. The coal, where it appeared on the surface, was excavated for domestic fuel; but the first furnace for the reduction of the ironstone was of such recent erection that its ruins, though not of very durable material or workmanship, still remain upon the right bank of the Taff, a little below Merthyr.

Towards the middle of the last century, the great increase in the English iron trade, and, above all, the introduction of pit-coal instead of charcoal, as fuel, led various speculators to examine the Merthyr district, and these persons obtained from the chief landlords mineral leases of the country, at an almost nominal rent, and for long periods of time. Many of these leaseholds have since been sub-let, at enormously advanced rents; others are still retained by the heirs of the original lessees, and form the sources of the wealth which, after much labour and care, and many trying fluctuations, a few of the Welsh ironmasters have acquired. Such a lease is still held by Mr. Crawshay, and that held by Sir John Guest, of Dowlais, has only recently expired. The Dowlais mineral district was leased about the year 1748 to the predecessor of Sir John, by Lord Windsor. Under this lease was constructed the first furnace in South Wales for the reduction of iron by means of pit-coal fuel. The leases of Cyfarthfa (Mr. Crawshay), Pen y-darran (Alderman Thompson), and Plymouth (Mr. Hill), were granted, and those works erected a short time afterwards. The leases of the works immediately east of Merthyr were granted when the value of the property was better understood, and consequently but few fortunes have been made under them. In the case of the Dowlais lease, the value, at its recent expiration, is said to have exceeded that of the property at the commencement, and, for many years after the commencement of the lease, above four hundredfold. It may be doubted whether the history even of metropolitan leases furnishes any example, on so large a scale, at all approaching to so vast a disproportion between the rent and the real value of an estate. In this case the chief landlord is the infant Marquis of Bute, whose lamented father recently, at an enormous private outlay, constructed a handsome dock and basin, at Cardiff, capable of affording every facility to the commerce of the district, and which has already begun to yield an adequate return to the estates.

Native iron is extremely rare, and is found only in the meteorilitic form. The iron of commerce occurs only in combination with certain ores, or oxides, of the metal, from which it is reduced, or smelted, by the action of fire. It is not necessary to dwell upon the 19 or 20 forms under which ores of iron are preserved in mineralogical cabinets. For the purposes of the manufacturer they may be conveniently classed as siliceous, calcareous, and argillaceous, according as silex, lime, or clay, prevail in their composition. The Glamorganshire ore is almost entirely argillaceous. It occurs either in detached balls, or nodules, or in regular bands, or strata, in either case enveloped immediately in beds of indurated clay-shale, or "bind." The Welsh ore contains about 33 per cent. of metal, and is probably about 3 per cent. richer than that of Staffordshire.

The materials employed in the reduction of iron are principally three:—1. The *ironstone*, whence the metal is to be derived.—2. The *fuel*, by the aid of which the necessary temperature is obtained—and 3. The *flux*, or adventitious substance introduced to cause the metal to fuse, or flow at a lower temperature, and under more favourable circumstances than would otherwise be the case.

The ironstone, technically called "mine," is found in numerous thin bands, dispersed among the coal measures. These bands are not, like seams of coal, thick enough to be worked exclusively, and therefore, with the "mine," a considerable quantity of slate-clay, or "bind," is brought to the surface. Here it forms, round the mouths of the workings, heaps, termed "spoil," and these "spoil banks" are the large ash-grey hillocks, incapable of supporting vegetation, which disfigure the otherwise not unpicturesque undulations of the iron country.

On reaching the surface, the "mine" is carefully stacked, and after an exposure of some months to the weather, the "bind" scales off, and a tribe of women and children, hammer in hand, speedily complete this process, and render the ironstone totally free from any extraneous matter. The quantity of "mine" thus left out to scale of course absorbs a part of the current capital of the ironmaster; but it is politic to keep employed large stocks, both of this and the other ingredients, since not only do they insure regularity in the daily supply of the furnace, but their presence also places the master in a far better position when, as sometimes happens, the miners strike work, and conspire to hold out against him. The "mine," when cleaned, is ready to be conveyed to the kiln to be roasted. The "mine," besides the mineral oxide, contains water, and certain smaller proportions of sulphur, arsenic, and other injurious but volatile substances, which it is the object of the next process to drive off. It is, therefore, roasted with coke, in a kiln, and its weight is thereby reduced 20 to 40 per cent. It is then ready for the blast-furnace.

The next material to be prepared is the fuel. Since the ore is a metallic oxide, it is necessary to expose it to some influence that will remove the oxygen, and thus liberate the metal. This is effected by the use of a fuel as near to pure carbon as is practicable. Formerly, in England, as now in Sweden, charcoal was the fuel employed, and it is still considered to be superior to any other. Small quantities of charcoal-iron are indeed still prepared at Backbarrow and elsewhere in Westmoreland, for the manufacture of wire and other fabrics requiring great ductility; but much of the Backbarrow iron of commerce is innocent of any connection with the place whence it derives its name. Most of the iron of this country, which has been manufactured above a century, is charcoal-iron, and the area-bars and railings of the older parts of London are well known to, and sought after by, the dealers in old iron.

All coal, besides its basis of carbon, contains a greater or less quantity of bituminous matter, the presence of which renders it more or less unfit to be used in the reduction of iron. The coal, deprived of bitumen, and of a quantity of sulphur, tar, hydrogen gas, and moisture, becomes a tolerably pure carbon, and is called "coke." The process of deprivation is called "coking." To convert coal into coke it is only necessary to raise it to a heat sufficient to drive off the bitumen, and then to put a stop to any further combustion. This process is commonly performed in large ovens, constructed with considerable care; but near Merthyr, where coal is cheap, and the general character of the operations loose and unskilful, the coke is prepared in the open air. Long ridges of coal are thrown up, inflamed, and suffered to burn for some days, until the flame disappears; the mass is then covered over with the small dust of the yard, and permitted gradually to cool. Many acres of such coke-yards are thus perpetually burning round Merthyr; and, when the night is dark and stormy, the flames of these Phlegræan fields may be seen blazing up from a great distance. The exaggerated figures of the coke-burners, with their long rakes and uncouth implements, may pass for the Celtic demons of the mine, tormenting the souls of deceased Saxon ironmosters.

The loss, in windy weather, by this unskilful process, is very considerable, and the coke produced is of an inferior quality to that made in close ovens. Under favourable circumstances, the Merthyr coal yields about 65 per cent. of coke. The importance of the subject of fuel to an iron-work may be conceived from the following statement:—Taking the annual domestic consumption of coal, in Great Britain, at 38,500,000 tons, and that consumed in the manufacture of pig and bar-iron at an average of about 6 tons to the ton of metal, the consumption in this manufacture will be 8,750,000, or towards 9,000,000 tons per annum, or nearly one-quarter of the whole consumption. The consumption round Merthyr, for the year 1839, was nearly equal to that of a city of 1,450,000 inhabitants.

Nothing is more variable among coals, even from the same seam, than their capacity for making coke. Towards Blaenavon and the eastern end of the coal-field, the seams are highly bituminous. At Merthyr they are but moderately so, and this is one reason for the clearness of the sky—very unusual over a town containing so many domestic hearths. Towards the western limits of the basin the coal is occasionally anthracite, containing little or no bitumen at all. Coke is usually employed in the blast-furnace, and with some exceptions in the kiln and finery. Some works, however, are fortunate enough to possess a coal which is sufficiently pure carbon to admit of its being used, uncoked, in the blast-furnace.

The next ingredient to be provided is the flux. The business of the flux is to combine with the earthy matter of the ore, as the fuel combines with its oxygen. The nature of the flux employed is, therefore, governed by the composition of the ore. The calcareous ores of the Forest of Dean require an argillaceous, and the argillaceous ores of Glamorgan, a calcareous flux. In either case the lime and clay enter into combination and leave the metal free. In Glamorganshire the flux employed is the mountain limestone. The preparation required is mechanical only, and consists in breaking down the limestone into lumps of a moderate size, which are arranged with the roasted mine and the coked coal, on convenient parts of a platform near to and commonly level with the top of the blast-furnace. Here also a small proportion of the red hæmatitic ore of Cumberland and Lancashire is added to the other materials. It contains about 50 per cent. of metal, and both raises the average richness of the mine, and imparts certain qualities of ductility and toughness to the metal: and also being a calcareous ore, it acts as a flux to the clay ironstone. This red ore is chiefly shipped into Wales from Whitehaven in Cumberland, and Ulverston and Barrow in Lancashire. It is usually found between the mountain limestoue and the lowest grit of the coal, but in Eskdale, above Ravenglas, it traverses the granite in three vertical veins; and it is found elsewhere in other geological positions, though frequently, as near Bristol, mixed up with an objectionable quantity of quartz crystals, and an alloy of the ore of manganese. In South Wales, near Llandaff, it is largely quarried, by Mr. Booker, in the mountain limestone.

The blast-furnace, in which all these ingredients are to be combined, constitutes the prominent feature of the establishment. In Wales it is a gigantic kiln, in form a truncated pyramid, measuring at the base from 30 to 50 ft. each way, and at the summit from 25 to 30. It stands about 45 or 50 ft, high, and within its top is placed a large cylindrical chimney, or tunnel head, rising about 12 ft. more. Each face contains a large arched recess, gradually diminishing towards the centre of the structure, and intended for the entrance of the blast and the removal of the melted metal. The effect of a range of these huge black furnace-towers looming through the smoke, and capped each by its flickering pyramid of flame, is very imposing. They confer upon the rest of the works that sort of character that castles, such as those of Dover, London, or Richmond, derive from their Norman keeps. The interior of the furnace is a double cone, in shape very much resembling an old fashioned decanter placed upon a funnel. The materials are put in at the top, and the products collected and removed by means of the pit at the bottom.

Where practicable, a blast-furnace is commonly built against the side of a hill, scarped down for that purpose, and the minerals are all arranged upon a platform at the summit, requiring only to be loaded, measured, and wheeled in. Below, in front of the furnace, are the cast-house, refinery, and other buildings intended for the immediate reception of the metal. At the top of each furnace is the filler, a careful person, whose business it is to weigh, proportion, and examine the several charges that are run into the furnace, and to keep it always full. The proportions of the ingredients in a charge vary according to the proposed quality of the metal, but speaking generally, a charge is composed of about 6 cwts. of coke, the same quantity of mine, and rather above a third of that quantity of limestone. The furnace receives about 50 such charges in a turn of 12 hours. To carry forward so rapid a combustion, a copious blast or supply of air must be forced into the furnace. To effect this, a steam-engine is made to pump air into an iron globe or reservoir, from 18 to 25 ft. in diameter. Here the air, condensed under a pressure of about 2½ lbs. on the square inch, exerts an expansive force, and is led away in tubes to the several furnaces, which are thus blown with a blast of uniform and known force. The front arch of the furnace is reserved for the escape of the metal, but the three other arches are occupied by the blast, which is introduced at three points, lest its violence should blow aside the materials unconsumed. The blast-pipes are kept cool, by introducing them through a double funnel, or tuyere, filled with water. Of such great consequence is the regularity of the blast, that upon its stoppage for any length of time, the contents of a furnace have been known to become solid. Under such circumstances the steam-engine is a most valuable auxiliary. It was first applied to the blast-furnace in the year 1770, and the make of iron was speedily doubled.

A blowing-engine has been calculated to pour into its receiver about 137 cubic feet of air per horse-power per minute; so that, allowing 30-horse power to each furnace, we shall have a supply per minute of about 4000 cubic feet. From this let one-eighth be deducted for waste and the service of the finery, and 3500 cubic feet will remain to pass into each blast-furnace, being at the rate per turn of 12 hours of 2,500,000 of cubic feet, or about 88 to 90 tons weight of air. Also, supposing each individual to consume, for all his wants, 7200 cubic feet per 12 hours, the consumption of the 54 blast-furnaces alone of the works round Merthyr, will equal that of a population of nearly 19,000 persons.

A blast-furnace should never be suffered to go out. The supply at the top should be perpetual, and the tapping at the bottom be performed at regular intervals. In this way furnaces will remain in blast for many years. At Dowlais, the largest iron-work in the kingdom, it was found, however, that the blast might be regularly stopped on the Sundays for eight hours, without any bad effect upon the furnace, and this has since, though in these works alone, been practised regularly. This necessity, however, for keeping the blast-furnaces in general action causes a very serious financial difficulty in the trade, since the ironmaster cannot readily reduce his make to meet his orders.

In some works the supply of water is sufficiently copious to admit of its general use as a power in the place of steam. This is the case to a cer-

* From the *Westminster and Foreign Quarterly Review*.

tain extent about Merthyr, where the Cyfarthfa water-wheels have long been celebrated for their size and excellent construction. The cost of a Welsh blast-furnace complete, with its share of the blast-engine and appendages, is estimated at about 6500*l.*

The general theory of the changes effected in the blast-furnace is simple. In the upper part of the furnace the heat is sufficiently great to drive off any volatile substances that may have escaped the kiln or the coke-field, so that the materials reach the centre free from any extraneous matter, at a high temperature, and ready to form new combinations. The carbon of the fuel unites with the oxygen of the ore, and passes off as carbonic oxide gas. The limestone, reduced to its quick or caustic state, combines with the argillaceous part of the ironstone to form a dense semi-vitreous slag or cinder. The metal, thus set free, melts and descends to the bottom of the furnace, to be from time to time let off. The slag rests upon the fluid metal and preserves it from the wasting action of the blast. The excess of slag flows over through a proper opening, and by its condition the workman judges of what is going forward within.

The variations in the operation of a blast-furnace are considerable, and their causes not wholly understood. Charges prepared and introduced under circumstances apparently similar often yield results wholly different. A shift of wind, a change in the temperature of the atmosphere, a slight degree of moisture in the blast, and many other causes, produce a material difference in both the quantity and quality of the yield. Furnaces generally work better in winter than in summer. Under favourable circumstances, the weekly make or yield of a Welsh furnace is from 60 to 100, or even 120 tons.

The slag or cinder is worthless, and its removal is expensive. It is carted away in iron waggons, and discharged, almost fluid, over what is called a cinder tip. These cinder tips form hillocks of from 50 to 60 ft. high; and as they are perpetually receiving a new coating of hot material, they very much resemble in their aspect, rate of advance, and the emission of a peculiar clinking sound, the lava stream of an active volcano. When a cinder tip is suffered to encroach upon a heap of spoil from the coal workings, the latter is apt to take fire, and the consequences are troublesome and lasting. In front of each furnace is a thick bed of sand, forming the floor of the casting-house, in which the moulder fashions a proper number of main and side trenches to receive the melted metal.

The furnaces are tapped twice in the 24 hours, when six tons is considered to be a good yield. The evening casting is a most beautiful spectacle. The furnace-keeper, standing in the deep shade of the arch, breaks up, by the aid of a long bar, the clay with which the orifice is stopped, the blast is for a moment cut off, the full depth of the arch becomes lighted up, and the metal, foaming and sparkling with a light not endurable by the unpractised eye, gushes forth in a single stream. The flow of the metal in the main trench or sow is so regulated, that each of the side trenches or pigs shall receive a full trough, or about an hundred weight of metal. Whilst this is going forward the furnace shoots up a vast volume of flame, accompanied by a brilliant shower of sparks, so that the act of casting is proclaimed for many miles around. When the iron has been run out, the sow and pigs are covered up with sand to cool, and the works are restored to comparative tranquillity for the next 12 hours. The metal thus produced passes in the trade under the general name of pig-iron.

The loss by this process is estimated at about 40 per cent., being 60 to 70 per cent. upon this and the preceding operations, so that three tons of raw mine may be taken as producing one ton of pig-iron. Pig-iron is classed according to the quantity of carbon with which it is combined. Carbon seems to bestow a certain degree of softness, toughness, and fusibility upon the metal; and, therefore, pig-iron moderately carbonised is more valuable for conversion into bar-iron than the metal in a purer state.

Castings direct from the blast-furnace are of an inferior description. The quality of the metal is uncertain, and the arrangements of the place and the habits of the people are unfavourable for delicate operations. Heavy castings, however, as fly-wheels and shafts, and the ordinary castings for the use of the works, are always run on the spot, and commonly direct from the blast-furnace. Pig-iron is an article of export. In this form it is purchased by founders and machinists, who, by melting down pigs of different qualities in their smaller furnaces, are able to produce a homogeneous metal of almost any quality, and of equable powers of contraction throughout the mass. The principal quantity, however, of Welsh pig-iron is converted on the spot into malleable iron by a series of processes, of which refining is the first.

The refinery is a broad shallow hearth, closed permanently at the two sides, open in front, and capable of being closed behind by means of a pair of iron folding doors. Above is a low chimney. In this furnace a proper charge of coke and pig-iron is placed. Two blasts, one on each side, are set in action, and a strong heat is kept up for two or three hours. The fused metal falls upon the hearth, and there receives the full force of the blast under circumstances highly favourable to the combination of its oxygen with the carbon of the metal. The refinery is fed from time to time with coke, or coal, but the supply of iron is given only at the commencement of the process. As the iron fuses, the refuse or cinder is suffered to flow away. "Finery cinder" contains about 60 per cent. of metal, and in certain limited proportions, mixed with red ore, is readmitted into the blast-furnace. In some works, with the intention of saving fuel, the iron is run at once from the blast-furnace into the refinery. When the appearance of the metal informs the "finer" that it has reached a certain stage of decarbonisation, he suffers it to escape into a broad shallow trough, exposing a large surface to the air, and he further aids the decarbonisation by the direction of a copious jet of water upon the fluid metal. Whatever the scientific results of this affusion may be, the apparent effect is a most active fume and splutter. Clouds of dense steam are thrown up, a horrible hissing is heard, and the stranger only stands still because he feels that in the mist he is just as likely to run into the furnace as to run away from it. This dreadful broil is by no means the least striking part of iron making. The loss during this process is about 10 per cent.

The iron, now called "finers' metal," has reached its first stage towards malleability, though apparently far less tractable than before. It has become highly infusible, hard, and brittle, even when hot. Its fracture is as white as silver, its lower surface dense, its upper full of flams and air-bubbles. The cakes are removed from the trough, broken up with sledge-hammers, and carried off to undergo the next process, that of *puddling*.

A *puddling-furnace* is of the reverberatory kind, and so constructed as to expose the almost fluid metal to a strong current of air. Here no blast is employed, the requisite draught being obtained and regulated by a moderately tall chimney and proper dampers. The metal is not placed in contact with the fuel, though exposed to its full heat. Into this furnace the "puddler" inserts masses of finers' metal, of convenient size, and raises the temperature until the metal becomes viscid. The temperature of the furnace is then lowered, the mass begins to bubble up and inflame, and gives out a gaseous compound of carbon and oxygen. Its power of cohesion become suspended, and it falls almost like powder. A vapour arises from it, the temperature is again raised, and the puddler, by the aid of a long bar, kneads up the metal into a ball of from 80 lbs. to 90 lbs. weight. This ball is then seized upon by the helper, and dragged along the iron floor as a "puddle ball," a glowing mass of impure iron, next to be subjected to the discipline of the *hammer*.

This is a gigantic hammer, weighing from 4 tons to 5 tons, set in motion or tilted by the steam-engine, and striking from 100 to 120 blows per minute. Under this process the cinder, oxide, and other impurities connected with the iron, are violently jerked out, and the ball is beat into a dense angular bar or ingot, called a "bloom." In some works a "pressure" is substituted for the "hammer." The loss upon the process of puddling, tilting, and the first rolling, is estimated at about 10 or 12 per cent.

Before the introduction of rolling machinery into the iron manufacture, "blooms" formed a great article of Welsh export, as they still do from Westmoreland. Now, however, but very few find their way to Cardiff. The bloom is malleable iron in a state of tolerably purity. Before the use of the air-blast and fining process, the metal was reduced from a very imperfect state of fusion to that of a "bloom" by repeated and laborious use of the hand-hammer.

[*To be continued in next week's Journal.*]

DIED,—On Sunday, the 22d inst., at his residence, Sydenham-hill, Kent, Francis Carleton, Esq., for many years a managing director of the Peninsular and Oriental Steam Navigation Company, in the 48th year of his age.

EXHUMED TOAD.—About three weeks since, Mr. J. Thomas having occasion to cut a very ancient oak, in the parish of St. Wenn, for the purpose of making a new axle to his water-machine wheel, discovered, at about 6 inches above the roots, a large toad in the very heart of the tree, being inclosed on every side. It was alive, and there can scarcely be any doubt of its having continued in the same solitary abode for the last 200 years, without either food or air. —*West Briton.*

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BY J. Y. WATSON, ESQ., F.G.S.

No. V.—THE SYSTEM OF CORNISH MINING—*(Continued.)*

The ores, or, as the miners term them, *lures*, are all dressed by women and boys, who cob them, pick them, jig them, buck them, buddle them, and spall them, as they may require; but as these terms of art may not be altogether intelligible, the process may be described in humbler words.* In order to prepare *copper ores* for market, the first process is, of course, to throw aside the deads, or rubbish, with which they are unavoidably mixed; and this operation is very cleverly performed by little girls of seven or eight years of age, who receive 3d. or 4d. a day. The largest fragments of ore are then *cobbed*, or broken, into smaller pieces by women; and, after being again picked, the whole is divided into—1. Prills, or lumps, of ore.—2. Dradge, or ore, mixed with other substances.—3. Halvans, hennaways, or leavings, which contain but a small quantity of ore. The prills are given to what the Cornish miners term *maidens*—that is, to girls from 16 to 19 years of age. These maidens *buck* the ores—that is, with a bucking iron, or flat hammer, they bruise them down to a size not exceeding the top of the finger, and this portion of the ore is fit for market. The dradge, when containing but little iron pyrites, is *bucked* to a smaller size than the *prills*, and then jigged, either by machinery, or by little boys, who shake them in a sieve under water. By this means it is separated into four parts—1. That which passes through the sieve, and is usually fit for sale, called *hutchwork*.—2. The portion at the bottom of the sieve, called *ragging*.—3. The middle part of the contents of the sieve, which is again *bucked* and *jigged*—and 4. That at the top of the sieve, which is put among the *halvans*, or refuse. Some of the ores of copper are so soft, that exposure to water would occasion loss, in which case they are fit for the market, after being sifted, cobbed, and picked. The halvans, hennaways, or leavings, are the refuse from the preparation of the *crop*, and, when not much mixed with iron pyrites, those portions which contain the greatest quantity of ore are *bucked* and *jigged*; but when mixed with foreign substances, of great specific gravity, they are *cobbed* and picked. The portions that contain but little ore are *stamped*, and the *stamped* work is *trunked*; the larger particles of the *trunked* ore are *tyed*.

The dressing of *tin ores* is altogether a different process, because not only are the ores perfectly different, but the method of smelting them is also so different, that it is necessary the tin should be reduced to the finest powder, while copper ore is smelted in small lumps. The tin ore, after being picked, and separated from the *deads* by vanning, is thrown into a stamping-mill, where it gradually falls under a number of piles, or beams, of wood, shod with iron, which are worked vertically up or down—generally by a water-wheel. As it is necessary that the ore should be bruised to a very fine powder, the bottom of the stamp is surrounded by a very fine copper sieve, and water being made constantly to flow through this, the ore can only escape when it is fine enough to pass with the water through the interstices of the sieve. It then settles into a very fine mud, which is composed of metallic particles, and powdered quartz-rock, &c. This mud undergoes a very ingenious process, which the miners term *buddling*. The metallic, and other particles, are all of different specific gravities; and the dresser, being aware of this, places the mud at the top of an inclined plane, and, gently working it about, allows a small stream of water to run over it. In a short time the inclined plane is all equally covered with the mud; and although, to any person who has not been brought up to the business, the whole mass has the same appearance, yet the dresser is able to distinguish, and to draw a line between, the heavy metallic particles which have remained at the top of the inclined plane, and the worthless ones which, from being lighter, have been washed towards the bottom. After separating the one from the other, the worthless part is thrown away, and the metallic part buddled again, and the process is repeated until the mass retained consists almost entirely of metallic particles. But these particles, which are as fine as flour, are not all tin; generally many of them are composed of mundic (the sulphuret of arsenic); others are copper; and as the difference between the specific gravities of these three metals is not sufficient to separate them by budding, or washing, it becomes necessary to roast the mass—an operation which the dresser does not himself perform. As soon as the mass is placed in a furnace, and subjected to a proper degree of heat, the sulphuret of arsenic goes off in white poisonous fumes, or smoke, and the specific gravities of the different particles of copper and tin are so altered by the action of the fire, that, upon being taken out of the furnace, and again delivered to the dresser, he finds that, in the course of carefully buddling the mass on the inclined plane before described, the particles separate—the tin, which is the heaviest, being left upon the upper part, while the copper is at the bottom. The tin is then packed in bags and sold; and, being nearly pure metal, it requires, in comparison to copper ore, so little fuel, that it is all smelted *in Cornwall*.

Whoever compares together the two processes of dressing copper and tin ores, must be satisfied that they are completely different affairs; and in Cornwall, accordingly, it is perfectly well understood that they form different trades. The ores are so dissimilar, and require such different modes of treatment, that the experience which the labourer gains in dressing the one, is of no possible use to him who dresses the other. It is true, that both sets of people are called *dressers*, but it does not follow that, for that reason, they can all dress *anything*; and to desire a copper dresser to dress tin ores would, in Cornwall, be considered as preposterous as if one were to send him to Aldersgate-street to dress a turtle, or to St. James's-square, to dress a duchess.

But it is time that the *underground captains* should come to *grass*, and that the whole body of subterraneous labourers should be released; and those who have attended to their labours throughout the day, will scarcely regret to see them rising out of the earth, and issuing in crowds from the different holes or shafts around—hot, dirty, and jaded—each with the remainder of his bunch of candles hanging at the bottom of his flannel garb.

As soon as the men come to *grass*, they repair to the engine-house, where they generally leave their *underground clothes* to dry, wash themselves in the warm water of the engine pool, and put on their clothes, which are always exceedingly decent. By this time, the *maidens* and little boys have also washed their faces, and the whole party migrate across the fields in groups, and in different directions, to their respective homes. Generally speaking, they now look so clean and fresh, and seem so happy, that one would scarcely fancy they had worked all day in darkness and confinement. The old men, however, tired with their work, and sick of the follies and vagaries of the outside and the inside of this mining world, plod their way in sober silence—probably thinking of their supper. The younger men proceed talking and laughing; and, where the grass is good, they will sometimes stop and wrestle. The big boys generally advance by playing at leap-frog; little urchins run on before to gain time to stand upon their heads—while the "*maidens*," sometimes pleased and sometimes offended with what happens, smile or scream, as circumstances may require. As the different members of the group approach their respective cottages, their numbers of course diminish; and the individual who lives farthest from the mines, like the solitary survivor of a large family, performs the last few yards of his journey by himself. On arriving at home, the first employment is to wheel a small cask in a light barrow for water; and, as the cottages are built to follow the fortunes and progress of the mine, it often happens that the miner has three miles to go ere he can fill his cask. As soon as the young men have supped, they generally dress themselves in their *holiday clothes*—a suit better than the *working clothes* in which they walk to the mines; but not so good as their *Sunday clothes*—in fact, the *holiday clothes* are the *Sunday clothes* of last year; and thus, including his *underground flannels*, every Cornish miner generally possesses four suits of clothes.

The Sunday is kept with great attention. The mining community, male and female, are remarkably well dressed; and as they come from the church, or meetings, there is certainly no labouring class in England at all equal to them in appearance, for they are naturally good-looking. Working away from sun and wind, their complexions are never weatherbeaten, and often ruddy; they are naturally a cheerful people, and, indeed, when one considers how many hours they pass in subterraneous darkness, it is not surprising that they should look upon the sunshine of the Sabbath as the signal, not only of rest, but of high and active natural enjoyment.

To show the great advance in the system of mining, the following extract, from a communication made to the Royal Society in 1671, is exceedingly curious.—(*Phil. Trans.*, vol. 6, page 2087). After describing the steps which were taken, in order to discover lodes, the writer proceeds —"When we have found one lode, the last *assay hatch* (costeaning pit), exchanges its name for that of a *tin shaft*, or *tin hatch*, which we sink down about a fathom, and then leave a little long square place, termed a *shamble*, and so continue sinking from east to east—*i. e.*, as high as a man can conveniently throw up the ore with a shovel—till we find either the lode to grow or degenerate into some kind of wild, as mundic, or maxy, &c.; then we begin to drive east and west, as the goodness of the lode or convenience of the hill invite, which we term a drift, 3 ft. over and 7 ft. high; but, in case the lode be not broad enough of itself, then we usually break down the *deads*, first on the north side of the lode, for the greater convenience of the right arm in working, and then we begin to rip the lode itself. The *beetlemen* rip the *deads* and ore; the *shovelmen* carry it off, and land it by casting it up with shovels from one shamble to another, unless it be when we have a winder with two kibbles (great buckets, made like a barrel, with iron hoops, placed just over the then termed *wind hatch*), which, as one comes up, the other goes down. When we are come at any depth, and find the water begin to annoy us, we descend to the bottom of the hill, when we have that convenience, and at the lowest place begin a little drift on a level, till we come up to our work; but when we once pass that level on which our adit runs, and the water begins to trouble us, we have this remedy—either with winder and kibbles, or leathern bags, pumps, or buckets, to get it up to the adit level, and so we are inforced to do to the very top, when we have not the convenience of an adit."

[*To be continued in next week's Mining Journal.*]

* "A Glossary of Mining and Smelting Terms" is published, in a neat pocket-size, at the *Mining Journal* office, 26, Fleet-street; it may be obtained of any bookseller or newsman, price 2*s.*

Mining Correspondence.

ENGLISH MINES.

ANTIMONY AND SILVER-LEAD.—Capt. C. Williams (Oct. 23) reports—Our tributers are getting on well with the antimony, and the lode is increasing in size as we get down, and more regular. I have set Marlborough adit to six miners, at 37*s.* per fm.

ASHBURTON UNITED.—Captain J. Kernick (Oct. 21) reports—Hobson's 14 fm. level continues in favourable ground for driving; the present end is 5 fms. from the Brothers' lode, which we expect to cut in the next month. The 14 fathom level cross-cut south, at Murray's, is in hard ground; we have 3 fms. more to drive to cut the south tin lode, which will hardly be accomplished in the next month. The tin pitches generally increase their monthly returns of tin. We shall send 6 tons of fair quality tin to the smelting-house next week.

BARRISTOWN.—Capt. T. Angove (Oct. 19) reports—The ground in the eastern flat-rod shaft has improved in appearance since my last; it is now much the same as the ground about the lode in the adit level, and 10 fms. under the 16 fm. level. In the 16 fm. level end east the lode is large, with a branch of lead about 2 in. wide on the north side of it, producing about 3 or 4 cwts. of lead per fm. In the adit end east the lode is through the slide, and producing about 10 to 15 cwts. of lead per fm. The pitches look much the same as last reported. The adit shaft, east of Nangles, is down between 11 and 12 fms. We shall now drive south of it, to cut the lode at the same level as the adit.

BEDFORD UNITED.—Capt. James Phillips (Oct. 25) reports—At Wheal Marquis, the engine-shaft is about 8 fms. under the 90 fm. level—the ground continues favourable. We intend commencing to cut through the lode in the 90 end and 70 fm. level to-morrow. The lode in the 80 fm. level east is at present hard, and it has, therefore, been determined to drive by its side for a few fathoms. Tiller's winze, in this level, is suspended, on account of great increase of water, and the men put to stope the back of the 90 fm. level, at a tribute of 5*s.* 6*d.* in 1*l.*

COOMBE VALLEY.—Mr. C. S. Richardson reports—Our quarries continue to produce slate of the finest quality, in quantity we are unlimited. Two vessels are preparing now for loading—one for London, the other for Poole—the weather is very rough in the Bristol Channel, or we should have had a cargo off last week. Our orders for slate of all kinds is so great, that, had we the capital, we would at this time employ 500 men; the net profit, on making roofing slate in the manner we are now working, is about 15 per cent.

CWM ERFIN.—Capt. S. Nicholls (Oct. 21) reports—I cannot say anything about the 20 fm. level this week, on account of our being engaged putting down the lift of pumps to make ready to put the whim to draw from this level; this work will take us most all next week to complete. We have not met with anything in the cross-cut as yet. The stope, in the back of the 10 fm. level, is at present looking very well for ore; I shall be able to tell you more about it in my next report; the rise, in the back of the 10 fm. level, is to prove a piece of ground, which is now worth 4 cwts. of ore to the fm.

DEAN PRIOR AND BUCKFASTLEIGH.—Captain H. Choake (Oct. 25) reports—In approaching the lode in the 40 fm. level the ground still holds out its very promising character, and showing strings of yellow ore between the floors, and it is reasonable to expect, from the indications in this level, and from the size and nature of the lode gone down in the level above, or 30 fm. level, that we shall meet with a productive lode, which, in a short time, will decide as to cutting the lode—driven in the past week, 5 feet. We sampled and weighed on Monday last, at Totness, 17 tons 18 cwts. of copper ores, the water weight being deducted.

DEVON AND COURTENAY.—Captain N. Seccombe (Oct. 24) reports—The end driving west, in the 40 fm. level, on the gossan lode, continues large and mixed with branches of spar, mundic, and spots of ore; the ground is at present harder than it was when last reported on. In the end driving east, in the 50 fm. level, the lode is 2½ ft. wide, composed of mundic and spar, with some good branches and stones of ore.

EAST CROWNDALE.—Capt. S. Paull (Oct. 21) reports—Thomas's lode, in the 17 fm. level, east of Diamond's shaft, is much harder than when last reported upon, the ground being mixed up with floors of elvan. We are carrying about 5 fms. of the lode, which is composed of peach, killas, elvan, spar, mundic, and spots of tin, and presents a most favourable appearance. The ground in the cross-cut north, in this level, is a close blue killas, and of a kindly description for mineral to exist in. Thomas's lode, in the adit level, driving west of Harris's shaft, continues to be much mixed with killas and mundic; the lode continues its usual size, about 14 ft. wide, on the north side, composed of peach, prian, flookan, and mundic, the middle killas containing small veins of tin, the south side peach and tin, and worth about 35*l.* per fm.; the stopes in the back of this level are not quite so good as they have been, there being in this place a great mixture of killas in the lode, which has disordered it; it is worth at present about 15*l.* per fm. We intend to commence sinking a winze in the bottom of this level in the next week. Our engine, stamps, pitwork, &c., are all in good working order.

GREAT MICHELL CONSOLS.—Captain T. Richards (Oct. 25) reports—The lode in the 45 fm. level, west of the sump-winze, is, in its general character, more promising, containing mundic, ore, spar, and fluor. The water from this end is strongly mineralised and impregnated with copper, so much so that it is with difficulty the rods, valves, and working barrels (of iron) are kept in repair, being eaten away by the water. The 35 fm. level is without alteration; the lode still contains capel, mundic, and spar, with a small proportion of copper ore.

HOLMBUSH.—Capt. W. Lean (October 24) reports—The shaftmen are at present occupied in fixing the necessary pitwork, previous to intersecting the great cross-course, in the 132; the lode in the 132 fm. level, west of the diagonal shaft, is 20 in. wide, producing stones of copper ore; the end is wet, and we expect to cut the cross-course within 6 ft. driving. The lode in the 120 fm. level south is 4 ft. wide, producing about 3 cwts. of lead per fm.; the stopes, in the back of this level, will also produce 3 cwts. of lead per fm. The lode in the 100 fm. level south is 3 ft. wide, producing stones of lead—saving work; the lode in the stopes, in the back of this level, is at present poor. The lode in the 100 fathom level south is 2 ft. wide, composed of spar and prian, spotted with lead—saving work; the Flap-jack lode, in this level east, is 20 in. wide, making two good walls, with a moderate underlie north; it is composed of spar, mundic, and stones of copper ore; the country is a soft white killas; we are daily expecting to intersect the great cross-course. Some time since, we reported having cut a branch of copper ore, between two parts of the lead lode; since that time, we have stoped down a piece of ground, from within 2 fms. of the 100, to the 110 fathom level, and laid open this branch for that height; it will average 5 in. wide, composed of mundic and stones of firm yellow copper ore of good quality; we are driving west on its course at two points; but, being so near the lead lode, we cannot as yet say what the results will be—but no doubt, by-and-bye, we shall find it connected with the Flap-jack lode.

KIRKCUDBRIGHTSHIRE.—The agent (Oct. 21) reports—The lode in the 50 end west is about 2 ft. wide, orey in places, yielding nearly half-a-ton to the fm.; there has been a good branch of ore in the winze, coming down on the back of this end this week, making 6 cwts. of lead per fm. We have suspended the 40 end west for the time. The lode in the 50 end, west of Keith's shaft, is large and kindly, with rich spots of ore in it; but in the east end the lode at present is small, though not unkindly. We are not through the dead knot of ground yet in the 30 east, although the lode has changed this week considerably for the better. The rise in the back of this level is yielding 15 cwts. of lead to the fm., and is a fine lode.

LAMHEROOE WHEAL MARIA.—Capt. John Tabb (Oct. 25) reports—Davey's shaft has reached the 40 fm. level; the men are opening ground northwards. The engine-shaft is sunk 46 fms. 3 ft., having 8 fms. 3 ft. more to reach to the 50, which will be completed, I expect, before the end of November.

MENDIP HILLS.—Capt. F. C. Harpur (October 23) reports—No material alteration has taken place in the appearance of the lode in the 38 fm. level, south of the shaft, since my last report—being about 2 ft. 6 in. wide, composed chiefly of light coloured flookan, spar, and iron; ground favourable; present price for driving, 60s. per fm. In the slag department, we continue to remove the top rubbish from off the beds of slags; and in doing which, I am pleased to inform you, we find the slag stuff gradually increasing in thickness as we proceed towards the eastern part of the valley—being, at present, quite 20 ft. thick, which is 6 ft. deeper than we have hitherto seen it—the principal part of which is work that will ultimately pay for removing to the floors.

SOUTH WHEAL TRELAWNY.—Capt. W. Jenkins (Oct. 23) reports—The lode in the 30 fm. level, south of the cross-cut, is 2½ ft. wide; it has been in the last week 4 ft. wide; it took horse, which is working out; I think it will be in its regular course in a day or two; it is composed of light killas, mixed with barytes and soft spar, thickly sprinkled with fine-grain lead. The lode in the north end, at the same level, has been about a foot wide, composed of barytes and soft spar, with spots of copper ore and lead. We also cut a breast of lead in the north end, last Saturday; we have not cut through it yet; it appears to be a darker strata. I think it will alter the lode for the better.

TINCROFT.—Capt. Peter Floyd (Oct. 23) reports—The rise in the back of the 142 fm. level, east of engine-shaft, on Highburrow lode, is worth 38*l.* per fm. for tin. The stopes in the back of the 120 fm. level are worth 15*l.* per fm. for tin; in the bottom of this level we have commenced sinking a winze, the lode in which is worth 14*l.* per fm. for tin. Martin's east shaft, sinking below the 120 fm. level, on Martin's lode, is worth 10*l.* per fm. for tin. On Chapple's lode, in the 100 fm. level west, the lode is 3 ft. wide, with stones of ore. In the 90 fm. level west the lode is 4 ft. wide, at present disordered by small cross-courses. In the 80 fm. level west the lode is worth 4*l.* per fm. for tin. Blight's shaft is now down about 3½ fms. below the 84 fathom level. Dobree's lode, in the 58 fathom level, east of Chapple's shaft, is at present poor, but kindly. At Wheal Providence, in the 33 fm. level, east of engine-shaft, the lode is 2 ft. wide, with spots of ore. At North Tincroft, the lode in the 100 fm. level east is worth 5*l.* per fm. for copper. In the 100 fm. level west the lode is 2 ft. wide, with occasional stones of copper ore. The 90 fm. level east is worth 12*l.* per fm. for copper. The 90 fm. level west is worth 10*l.* per fm. for copper. The 80 fm. level, east of Willoughby's shaft, is worth 8*l.* per fm. for tin. Palmer's shaft is now down 9 fms. below the 80 fm. level; the lode is 2 ft. wide, with good stones of copper ore. The 80 fm. level west, on East Pool lode, is worth 8*l.* per fm. for copper. The 70 fm. level west is worth 4*l.* per fm. for copper. In Stainsby's shaft, sinking below the adit, we have intersected a branch, about 5 in. wide, with good stones of copper ore.

TRELEIGH CONSOLIDATED.—Capt. W. Symons (Oct. 21) reports—Garden's shaft, below the 100 fm. level, is sinking in the country. The 90 cross-cut north, east of Garden's, to cut the north part of the lode. In the 80, west of ditto, the lode is 1 ft, wide, but little ore. In the 70, west of ditto, the lode is about 2 ft. wide, with occasional stones of ore. In the 60, west of ditto, the lode is 14 in. wide, rather more promising, with stones of ore. In the 50, west of ditto, the lode is 2½ ft. wide, impregnated with ore, not to value. Wheal Parent engine-shaft, below the adit, is sinking in the country; east, on the middle lode, from Parent adit, the lode is 1 ft. wide, but not much ore.

TRENANCE.—Richard Dalton, purser (October 25) reports—The 12 fm. south-west level has now a course of grey ore, nearly 8 in. thick, in the end; the ground is very tender, requiring very strong timber to support it. In the 20 fm, east the wall has become a little twisted towards the north, which, if it continues so a few fathoms further, will become lireable with the 12 fm. above it; the ore still continues in the bottom of this level. The 20 fm. south-west level continues as last reported, except occasionally we find small unconnected pieces of copper ore and iron here and there, with greens.

WEST WHEAL PROVIDENCE.—Captain Ralph Penglase (Oct. 11) reports—Since the last meeting of adventurers in this mine, we have sunk Michell's shaft from the 40 to the 50 fm. level, and driven east and west in that level 25 fms. The level east of the shaft will average 8*l.* per fm., and for 2 fms. west 10*l.* per fm, when the lode became poor, and continued so for 9 fms., but it is now worth at least 10*l.* per fm., and improving. A winze has been sunk from the 40 to the 50, east of Michell's shaft, which was worth 9*l.* per fm.; the back of this level is being worked at 15s. per fm., by four men. The 40, west of Michell's shaft, has been driven 18 fms, through moderate tribute ground, but is now suspended, and the men are sinking St. Aubyn's shaft under the 20 fm. level, for ventilation, and to better work the ground on tribute; there are four men at 7s. 6d., four at 8s. 6d., four at 9s., and two at 12s. in the back of this level on tribute; and in the back of the 35 there are five pitches working—viz.: one pitch at 10s., one at 11s., and three at 12s. in 1*l.* We have at surface 11 tons of copper, worth from 8*l.* to 9*l.* per ton; and 12 tons of tin, worth 42*l.* per ton; which, owing to shortness of water at our stamps, we have been unable to make marketable.—[This report was read at a meeting of adventurers held on the 11th inst., the particulars of which appeared in our last.]

WHEAL BENNY.—Captain John Tabb (Oct. 25) reports—In answer to your inquiries respecting the time of cutting the lode in south cross-cut, I beg to say, that the original estimate was based upon the assumption that the lode underlies 3 ft. in a fm., which was, indeed, the amount of underlie where we saw it in the costeaning pit. The mere fact of our not cutting it within the time specified, shows, however, that its underlie is not so much, and is rather favourable than otherwise, as it is generally found that the most productive lodes are those which underlie least; we cannot, therefore, say with certainty when we shall cut it, but we are certain to do so, and even if it should be vertical, we shall reach it in a few fathoms more. The lode when seen on the back was of a strong champion character, and promising; but another great point in driving this cross-cut is to intersect a lode somewhat further south, supposed to be the Wheal Marquis lode, which has been so productive in that mine. We are not driving south from Benny or Ford shaft, as I anticipate that both adventurers will ultimately agree to drive the cross-cut from Lamheroo side; this will give the Benny adventurers 90 fms. back eastward upon it, or 10 fms. deeper than the present bottom of Ford shaft, and will also be a decided advantage to both parties. The cross-cut is driven north towards Fords's lode about 4 fms.

WHEAL TRELAWNY.—Capt. J. Bryant (Oct. 24) reports—The 72 cross-cut is extended east 8 fms. from Phillips's shaft, where the ground is somewhat harder than it has been; and, taking the underlie of the ground to be the same as it is from the 42 to the 62, we have 2 fms. more to drive to intersect it, which we expect to accomplish in a fortnight. The lode in the 62 end, north of this shaft, is 5 ft. wide, composed of quartz, flnor-spar, mundic, and lead, worth 13*l.* per fm.; there is no change of importance in the 62 end south; The ground in Trelawny's shaft is still rather hard. The lode in the 52, north of this shaft, is 4 ft. wide, composed of spar, can, mundic, and lead, worth 18*l.* per fm. The 42 end, north of this shaft, is worth 15*l.* per fm.; the stopes and pitches, throughout this part of the mine, are yielding a fair quantity of ore. At the north mine, the lode in the 30 end, north of Smith's shaft, is 2 ft. wide, composed of spar, prian, can, and lead, worth 8*l.* per fm. Smith's shaft is sunk 4 fms. below the 30 fm. level, but is now suspended, in consequence of water; the lode in the bottom of this shaft is worth 14*l.* per fm., which we anticipate being drained shortly by Trehane 45 fm. level, as we are now able to sink the winze near the boundary, which is 5 fms. below the 30 fm. level, in the bottom of which the lode is worth 10*l.* per fm. September month's ores, ticketed for on Saturday last, were purchased by Messrs. Sims, Willyams, and Co., at 15*l.* 17s. per ton.

WHIDDON.—Capt. Kernick (Oct. 21) reports—Caunter's shaft is sunk 3 fms. 3 ft. below the deep adit level; the lift of pumps are taken from Kitto's shaft, and, being placed in Caunter's shaft for the present, answer every purpose in keeping the water out to sink it. There is no improvement in the shallow adit end east. The pitches are much the same as when last reported. We shall send all the tin we can clean to the smelting-house next Wednesday, with the parcel from the Ashburton United Mines.

WILLIAM-MARY WORTH MINE (near Callington).—Captain W. Bice (Oct. 24) reports—Since the commencement of working by the present adventurers, there has been work raised of a very superior quality; the produce by the assay is as follows:—Sample No. 1. Produce, 663½ ozs. silver in the ton of ore.—No. 2. 1135 ozs. ditto.—No. 3. 875 ozs. ditto.—No. 4. 212 ozs. ditto. These samples were taken from the work without being dressed, with the exception of No. 2. The ground now working is also producing work of an excellent quality. We have set the level, east of the old engine-shaft to clear, where there is a quantity of silver ground, that can be profitably worked—we anticipate raising some good work from this level, as it is in the run of the silver ground. I would also recommend the driving a middle level at the point of the gossan, from Old Burrow shaft, west on the course of the lode, to Oke's shaft; silver ore, of the richest quality, has been raised at the intersection; the lode is 16 to 20 inches wide, composed of flookan, carbonate of iron, mundic, with rich silver ore interspersed throughout, all of which is good dressing work; this piece of ground between the above-mentioned shafts is of the most promising character, and can be worked with little expense. I should likewise recommend to put rises through the ground from the deep to the shallow adit; this level can be driven for 35s. per fm. in white killas, and such ground is congenial for silver. There are parallel tin lodes to this silver-lead lode, which I shall particularly report on at a future time. From the present appearance of the silver-lead lode, I have no hesitation in stating that I believe this will prove a very profitable mine.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

NORTH WHEAL FRIENDSHIP.—There are reports of a discovery having been made here.

WHEAL ANDERTON.—The workings here during the past fortnight present nothing new; they have driven through the slide in the western end of the 80—the lode, which is 6 ft. big, being large and tinny throughout; the east end, in the same level, still continues to improve, producing some good work; the back and bottom of the 80 are just the same. The 70 west looks promising for another shoot of ore. The lode in the sump, going down under the 80 fm. level, holds well.

[From the *Plymouth Journal.*]

PLYMOUTH WHEAL YEOLAND EAST.—The adit has been cleared and secured on the course of the lode 250 fms., and for nearly the whole of this distance the lode has been carried away; at present the space occupied by the orey part of the lode, which has been all removed, is 6 ft. wide. The south part of the lode, which appears to be mainly gossan, still stands, and will not be cut into until the level has been secured as far as it has been driven by the ancients; the bed is about 100 fms. to the east of Wheal Yeoland sett, and from 200 to 250 fms. to the east of the shaft on the great north lode, in which a course of tin was cut, in the early working of that mine, about 70 fms. to the east of the present deep adit

WHEAL ASH.—A market has been found for the mundic raised from these extraordinary lodes, and a cargo is being shipped from Morwelham. One course of solid mundic, varying from 6 ft. to 7 ft. in width, has been passed through for upwards of 35 fms.; the east end has at present more gossan. The number of men in the end and shaft, has, in consequence of the very encouraging appearance of the undertaking, been increased.

WHEAL FRANCO.—The general meeting was held on Wednesday, when Mr. J. ELLIOT SQUARE presided.—The reports of the committee and of the captain were most satisfactory: after payment of every liability, and the expenditure of 184*l.* 10s. in the purchase of shares to merge, and the striking out of every doubtful credit, there remained a balance of 359*l.* 9s. 2d. in favour of the adventurers. Sir Ralph Lopes, Bart., has, with a liberality which he has uniformly extended to mining industry, and which entitles him to the grateful esteem and regard of the mercantile community of this locality, permanently reduced the dues on this mine from 1-15th to 1-20th. An application is, we understand, to be made to the Rev. Mr. Sleeman and Mr. R. Spry for a like reduction, and from the known liberality of these gentlemen, there is every reason to expect that it will be complied with.

WHEAL ANDERTON appears to be established as a profitable undertaking.

OLD DELABOLE SLATE COMPANY.—We hear, from good authority, that this company has taken a lease of Miss Hockin's quarry, lately rented by Mr. T. R. Avery, thereby possessing themselves of the only remaining quarry of any considerable magnitude in the west of England.

FOREIGN MINES.

ANGLO-MEXICAN MINES.—*Guanaxuato, Sept. 4.—Asuncion.*—Seeing that mainly, in consequence of continuing the destajo, we were losing sums of money every week, I determined at once to put a stop to it; and, for this purpose, I descended the mine again, and carefully examined the operations, when I saw that, though the frente is promising, it would be prudent to suspend it, which has been done; and I now hope that, during the next few months, I may carry out our great object without loss; or, at all events, with such as will not weigh heavily upon us.

Week ending—	Memoria.	Sale.	Profit.	Loss.
Aug. 5	$602 3 3	$672 5 0	—	$266 0 3
„ 12	773 0 9	880 5 0	—	332 6 3
„ 19	398 3 9	643 4 0	—	76 5 9
„ 26	339 3 3	821 7 0	$71 4 3	—
			$675 4 3	
		Less	71 4 3	
		Total loss during the four weeks	$604 0 0	

Total number of cargas of ore disposed of during the four weeks 390, at the average price of $7·74 per carga.—(Mr. Brough is making progress in selling the remaining stores and machinery, and towards the settlement of the creditors' outstanding claims).

BOLANOS MINES.—Received Oct. 26, per *Trent.*

Extract from a Letter, dated San Clemente, Sept. 4:—There has been very little variation in the state of Celestina during the month. The extraction of ore has continued small, but of fair quality. With the view of opening ground, and thereby increasing the extraction, I have given a bargain, driving to the south in the new labor (San Juan), at the low price of $10 per vara; there is ore in the end of about 8 in. wide, and of an average ley of about 10 marcs per monton, and I hope soon to make room for more paradas. We have also discovered a narrow string of ore in the lower wall of Providencia, about 4 in. wide, but of very superior quality, which contributes materially towards keeping up the average ley of the ore. We have not yet ascertained if this is a separate branch, or merely a string of ore separated from the main vein by a horse. In Loreto, nothing has been discovered yet in the cross-cut, which (as mentioned last month) I have been driving to examine the other branches of the vein. I consider that, by the middle of the month, the trial will be completed, and, if still unsuccessful, I shall notify the owners that they may receive over their mine. I shall then endeavour to reduce our general expenses as low as possible, by abandoning our establishment in San Clemente, which will then be no longer required; and the opportunity for making this economy will be a weighty motive for abandoning Loreto, if there is no improvement. La Granja hacienda is again entirely stopped for want of ore to grind, and the Tahona mules are at pasture; but Mr. Placci gives me hopes of a small supply shortly from El Bote. Quicksilver is offered, in Zacatecas, at $125. A conducta will leave towards the end of this month; I shall then remit you everything I can collect.

Extract from a Letter dated Cerro del Boto, Sept. 5.—Our operations, both above and underground, have been somewhat retarded, on account of the bad weather that we have had. In the last 17 days, only five have been fair; during the rest the rains have been incessant, which not only keeps the workmen from their labour, but causes continual drawbacks in the whims. This, added to other streams of water that we have been cutting in the Compania cross-cut, has required the four whims of San Fernando to keep the water down. Enclosed I beg to hand you the usual monthly accounts and statements for August. You will observe, that although the loss was a little more than $8000, our extraction was 1000 cargas more than was beneficiated (raised 5322 cargas, reduced 4066). There is great difficulty in keeping the workmen at their labour. You will observe, that although we have had 85 paradas working in the month, the average of working days per week has only been three. Since I last addressed you, the whole range of workings to the east have fallen off in quality—during the last week the average ley of the extraction did not reach 6 mcs. per monton. However, in plan No. 1 west, the vein is promising, and our best ores are coming from that point. In Compania cross-cut, our progress has been retarded on account of the water referred to above; I have not, therefore, been able to put workmen on the small vein cut in July, and referred to in last month's report. In San Genaro shaft, our progress has been good, and we are now 13¼ varas below the cross-cut. I shall only continue the sinking two weeks more, and then stop, which will bring down our expenses considerably. The ground in Taylor's cross-cut is good, and, as soon as the shaft is finished, I have no doubt that this working will advance rapidly.

In Constancia cross-cut 9¼ varas have been driven in the month, and on the 30th ult. we struck the vein of Nopensada, and some tolerably good stones of ore have been taken out; but as we have not as yet cut through the whole of the vein, I am unable to say what it will prove to be. In Compania cross-cut 6½ varas have been driven in the month, and on the 19th ult. we struck the main lode, and have since that date driven about 2 varas into it, which increased our water in the shaft, and nothing less than four whims have been able to keep it under; but I think it is again lessening, as for the last three days we have been able to occupy half-a-whim by day, in the Mantio at San Fernando. The vein in the cross-cut is at present poor, nor can we expect anything very good until we get immediately under our present workings in the planes, and to accomplish this there still remains a few more varas to drive. In plan No. 1 west the vein continues about 6 varas wide, and in tolerably good ores, and, I am pleased to say, is perfectly dry. We have raised a good deal of ore from here during the month. In Pozo de Guia 1 vara only has been sunk in the month, as we have been occupied in stoping the high ground between this point and plan No. 1 east; the water in these workings has also nearly disappeared. All the workings to the east of Pozo de Guia have been communicated by driving through the different pillars, and they now form one large plan, in which the vein is not quite so good as it was at the date of my last report. The vein in the rise, in the back of Guadalupe east, is small, not over a vara wide, and the ore rather poor. In Valencianna Mine the new adit, and in San Jorge, the footway shaft are being worked by labourers.

REAL DEL MONTE MINES.—*Extract from a letter, dated Mineral del Monte, Sept. 9.*—By the abstract of costs and returns for July, which was forwarded by last packet, you will observe, that our loss during that month was $7820, or, on an average of five weeks, $1864. By the accompanying statement of cost and raisings for August, you will see that I estimate our loss on that month at $6100, or $11,525 per week. With respect to our drainage cost, I must explain that, at the beginning of June, we had not a single stick of fuel on hand, and were perfectly at the mercy of the weather and the wood carriers for the daily working of the engines. During that month, though our weekly drainage cost averaged $2240, and our receipt of fuel 2340 cargas would barely hold out well, yet during July and August (particularly the latter, when the return of wood has been 311 cargas per week), we have gradually increased our stock, until we have now on hand a fortnight's consumption (say, 1000 cargas)—so that my mind is at last comparatively eased on this score. If, then, we deduct the wood which has been stored from our current drainage cost in the last two months, it will reduce it to about $2000 per week, instead of $2240, as in my statement.

Regla Mines.—The important trial in the San Pablo bottoms has been sadly hindered during the past month, or I should have been able to say something as to our expectations from this point. In the course of driving the Teresa level east, so much water was cut, that an additional 7-in. pump, alongside of the former 14 in., became necessary to master it; and this extra load, which tried severely the strength of our machinery, was followed by a succession of accidents. In the horizontal communication from Dolore's diagonal shaft, at San Pablo's winze, between the 13th and 14th of last month, the iron radius bars, and some of the rods, broke three times; and with the delay of replacing them, and afterwards forking the water, hindered us nearly a fortnight's work in the San Palbo bottoms. All the weak parts having been replaced by stronger ones, the drainage has been very steady since the 23d of last month; and will now I expect continue so, unless the strain be again increased by any further accession of water.

I mentioned in my last having commenced the level from the bottom of the San Pablo winze, upon the flookan; but, after advancing 15 varas, this vein was found to separate so rapidly from the biscaina, that I determined at once to commence the cross-cut, though not quite sufficiently advanced to be directly under the most promising part of the Santa Loreto above. This is now just entering the lower wall of a hard spar lode, containing strings of ore, which assay pretty well, and we trust will improve as we go further in. Another fortnight, if hindred by no accident, will now suffice for ascertaining how far the old biscaina is disposed to help us in our difficulty; but it must be with a good body of smelting ore to be of any value at this point.

REGLA MINES.—I have been endeavouring to introduce economy into all our mines; but while on dead works at Dolores, and with such an uncertain vein as at Moran, the result is not readily ascertained; but at Acosta and Sacramento, where our produce, though poor, is pretty constant, the effect is more apparent, as shown by the following statement:—June, weekly extraction of ore, 619 cargas; cost, $1198, or $1 7½ per carga.—July, ditto, 741 cargas; cost, $1363, or $1 6½ per carga.—August, ditto, $820 cargas; cost, $1304, or $1 4 per carga. Setting aside smelting ore, of which Sacremento produces none, it is the most productive mine of the two, and worked at far less cost. At Acosta, the most productive working, La Luz bottoms, in addition to being near the water level, has much fallen off in quality, particularly in smelting ore.

Moran has been steadily at work during the last month, and its small produce must be wholly attributed to the poorness of the vein; but it now appears inclined to improve again. In this month we have again had a breakage in the fly-wheel shaft, causing, however, only the delay of 24 hours, though we had to mould and cast a new axle. You will observe that our weekly extraction of ore remains pretty steady at 1200 cargas, and to make up the required supply of 1400 cargas, to keep both our haciendas at full work, I am taking from the former rejected piles of poor tierras, which I found at the surface in Acosta and Sacramento Mines. Should we be so unfortunate as to fail in our hopes of obtaining any assistance from the San Pablo bottoms, I shall be under the necessity of immediately inspecting the deep drainage; for so poor are now the La Luz bottoms, at Acosta, that this trial remains our only inducement for continuing it in the Regla Mines. The only mine to which we can then look for any assistance is that of Sacramento, which has of late been producing pretty well; and where, in Capt. Skinfill's opinion, by increasing the number of barreteros, we may for some months double its extraction. In Acosta there is nothing besides the La Luz bottoms that will pay cost, so that I expect it will be advisable to entirely close that mine, and with thr Dolores engine above endeavour to prevent the water rising more than 40 varas above Aviadero level, which will be sufficient for our Sacramento workings. The suspending the deep drainage will lose us the Moran Mine, where, unassisted, its present engine will be perfectly inadequate to keep down the water.

UNITED MEXICAN MINES.—*Guanaxuato, Sept. 8.*

Mine of Rayas.—I was not prepared, until my arrival here, and since then, to find the serious extent to which the operations of this mine have been affected by the late revolution. The loss of time and interruption of labour, in the first instance, amounted to almost a suspension of operations, and therefore of produce; and, in the second, the gradual falling off in the workings of Santo Toribio, but more especially the ingress of a considerable body of water into that part of the mine. The following comparative statement of the general results of the last five weeks, ending the 2d inst., shows a considerable improvement on the preceding disturbed period ending the 29th July, viz.:

Five weeks ending—	Picked Ores.	Half Sales.	Outlay.
July 29	Cgs. 2852	$2647 3 0	$25,967 1 4
Sept. 2	4340	6022 0 4	31,924 3 2
	Cargas.. 1488 Increase.	$3374 5 4 Increase.	$5957 1 6 Increase.

I enclose herewith Mr. Parkman's usual report, brought down to the 4th inst., to which I have nothing more to add, except that it is also my opinion a moderate improvement in the results of the sales, on joint account with the buscones, may be shortly looked for, by extending our operations to San Pablo, Los Reyes, and San Lorenzo, three workings at present suspended.

Quicksilver.—I have purchased, since my last, 70 bottles of this article, as no portion of your shipments have yet reached me.

Remittances.—By the conducta, which should leave here not later than the 20th inst., that the funds may reach Tampico in time for the packet of next month, it is my intention to forward for shipment to the directors, a remittance of not less than $60,000, all duties and charges being provided for apart.

J. N. SHOOLBRED.

Report of the State of the Workings in the Mine of Rayas.—Sept. 4.

La Purisima.—No change has taken place in these workings, nor is to be expected, unless it may be the result of some unforeseen good fortune. The improvement which will be observed in the last sales of buscones, is mainly ascribable to campos in other portions of the mine to which they have been admitted. A still further moderate improvement may be expected by extending their operations to other points now in contemplation—viz.: San Pablo, Los Reyes, and San Lorenzo.

Santa Cecilia continued as a level to the south-east, and has advanced 6·93 varas without any material change. The vein continues large, but poor.

San Antonio.—After being driven 3·74 varas, the ore became an object sufficient to induce buscones to continue the speculation.

San Luis.—The cross-cut, from Santo Toribio to the lower cuerpos of the vein, has advanced 5·25 varas in hard rock, and much water. The indications of ore continue, but have not improved.

Santo Toribio.—The upper workings of this section of the mine, which are the Contra Cielos of La Merced and Jesus, have not declined in average produce, but rather, in some points, improved. The levels to the south-east of Santo Toribio and San Miguel are poor, so much so as to induce the suspension of San Miguel, considering that one level is sufficient for speculative purposes. In the pozo of Santo Toribio no particular change has taken place in the ore, but the work is suspended in consequence of having met with a quantity of water, which we have not been able to exhaust with the means as yet applied thereto. This unexpected ingress of water may be from a constant source, or may be in consequence of the late heavy rains. The frente of San Felipe is driven from this pozo to the south-east, and is about 8 varas above the water. Although it is directly under the point where the ore made so good in Dolores, yet the general aspect of the work is discouraging. A small cross-vein, which intersects the principal vein, is being tried in several points. The produce thus far is a narrow thread of rich ore. During the past month there have been 60 barmen at work day and night. In the great shaft the water, in the last two weeks, has recommenced rising, from the influence of the rains—it rose, during the last week, 2½ varas.

ACCIDENTS.

Wheal Trumpet Consols Mine.—On Saturday, the 14th inst., about 5 o'clock, a man named Bennett Pryor was at work in the shaft at the 40 fm. level, in this mine, when, by stepping on a rotten piece of wood, it gave way, and he was precipitated to the depth of 10 fms.; he was taken up in a senseless state, but lingered until the following Wednesday. He has left a wife and six children to mourn his loss.

Tywarnhale.—J. Stephens was killed here by a blast going off while tamping.

Brierley Hill.—Early on Sunday morning last, as an engineer, named E. Millichap, was cleaning the machinery connected with an engine at Brierley Works, his foot slipped, and he unfortunately fell a distance of 13 feet, on to a piece of heated sheet-iron. The poor fellow, who was dreadfully burnt and otherwise sadly injured by the fall, remains still in a very precarious state, not having spoken since the accident. The sufferer is attended by Mr. Kempson and Mr. Hudson, surgeons.

Fatal Explosion of Fire-damp.—On Tuesday morning last, a fatal explosion of fire-damp took place at Mr. Stock's new colliery, Sennela Green, near Ashton-in-the Willows. It appears that, about six o'clock on the above morning, five persons were employed in the mine, with lighted candles, when the foul air ignited, and an explosion took place, by which they were all killed.—*Preston Chronicle.*

Fatal Accident at Clay Cross Colliery.—G. Robinson was almost instantaneously killed on Saturday last, by the falling in of a part of the roof of the pit in which he worked.

Dudley.—A collier, named Finch, was killed by a fall of coal, while working in Messrs Blackwell's Colliery, in the Old Dock.

COPPER MINES IN AMERICA.—The Boston papers speak of the existence of rich copper mines in Old Concord, Massachusetts, about four miles from the town. Three or four companies are said to be at work, one of which has obtained a quantity of ore yielding from 40 to 60 per cent. of pure copper. Another company has eight or 10 Cornish miners engaged sinking a shaft on to a lode about 5 feet thick, of what is pronounced by the captain very pure ore. A specimen furnished for analysis yielded, it is stated, 36½ per cent. of pure copper, and the miners are reported to have declared that they never saw better indications of copper than are found in that district.

PARIS AND STRASBURG.—The directors of this Railwaay have inserted a statement in the Paris papers to the effect that they have nothing whatever to do with the petition now in the course of signature for the purchase of the line by the state. The directors state that they have kept all their engagements with the state since they obtained the concession of the railway, and they hope, in a short time, to be able to open a portion of the line. The petition, they say, has been got up entirely for stock-jobbing purposes, by a few proprietors who have not been in possession of their shares more than a month.

TAMAR SILVER-LEAD MINING COMPANY.

The annual general meeting of shareholders was held at the offices of the company, Finsbury-square, on Thursday, the 26th inst.

P. N. Johnson, Esq., F.R.S. and F.G.S., in the chair.

The advertisement convening the meeting having been read, the following report from the directors was submitted:—

DIRECTORS' REPORT.

The principle of preferring future, but certain, profits to the immediate declaration of dividends, and of pursuing the plan of operations for working the company's property, which was enunciated at the last general meeting, has been systematically proceeded upon since that period, and the reports of progression in the several departments of the company will furnish evidence of the practical benefit which has resulted from the application of these principles. The several important operations since consumated have, therefore, been carried out, in order to effect the object of perpetuating profitable returns to the shareholders, and, at the same time, to render the company's property of permanent and lasting value. This design has been satisfactorily effected, ample proof of which will be furnished by the reports and accounts now submitted. A credit balance of 815*l.* 14s. 5d. will be shown by the accounts in favour of the company, and every legitimate and proper effort is being made to increase that amount to a sum equivalent to a dividend. The accounts have been carefully audited by Messrs. Burls and Leary (two shareholders), and the result of them is deemed satisfactory, when considered in connection with the material operations carried into effect, and the universal depreciation of mining produce, which has prevailed since the last meeting. All alterations and improvements are specially and minutely noticed in the reports of Mr. Johnson and Capt. Sprague, and the several departments are specially and fully reported upon. The lode in the south mine is realising the anticipations which were expressed at the last general meeting, proving rich and productive in depth; and from the ore ground being developed in the 135, 145, 160, and 175 fm. levels, large and continuous returns are expected. The 135 and 145 fm. levels have been remarkably productive during the last 12 months, both levels being extended through a very profitable lode, and every level in depth proving the lode to maintain its usual size and productive qualities, exhibiting, therefore, satisfactory evidence of the lasting and profitable nature of the mine. At the north mine, a steam-whim engine has been erected, for facilitating the operations, and the several results of the workings, with the present indications, afford reasonable expectations of ultimate success. A confident opinion is also expressed by Mr. Johnson and the agents, that the lode will become in depth settled and regular, and improve in productiveness. The south mine, considered separately, has realised a profit of 1900*l.*, but this amount has been reduced to the sum shown by the accounts, by the excess of expenditure at the north mine, which is essential to the protection of the leases and future development of this part of the property. The smelting department has furnished substantial proof of prosperity. The results of the operations of this property does not alone constitute its benefit and importance—the establishment having exercised the most beneficial influence in securing to this company an equitable price for the ores produced, and giving an entire stability and independence to the company, without which its interest would have been seriously damaged. Numerous advantages have almost naturally arisen out of this department, which, for several reasons, it is unnecessary to particularise; and, these works, with all their concomitant benefits and advantages, are now without cost or charge—your property forming an integral part of the Tamar Mining Company. Thus uniting two properties which present appearances of much worth and interest, and by these means giving a permanency to your property which can rarely be possessed in such enterprises. That the directors have been instrumental in effecting this result, is a subject of much pleasure, as it gives them an opportunity of congratulating the shareholders upon the propitious and valuable state of their property.

Independent of the sum of 815*l.* 14s. 5d., shown as the credit balance of the mine, there is an item of subsist, which increases the amount to 919*l.* 11s. 5d.; there is also a sum of 1723*l.* 13s. 3d. in reserve, and, therefore, the pecuniary affairs of the company are in a substantial position, independent of the valuable plant and materials of the company's smelting establishment, which cannot be estimated, even at the most moderate calculation, at less than 11,000*l.*

Dr.—Amount of cost for 12 months, to the end of August	£16,731 17 7		
London management, law charges, &c.	564 17 2	£17,296 14	9
Balance		815 14	5
Total		£18,112 9	2
Cr.—Twelve months returns of silver-lead ore, to end of August, 1848		£17,216 5	0
Balance from last account		896 4	2
Total		£18,112 9	2
Balance		£ 815 14	5
Advanced to men on account of September cost		103 10	0
Reserve fund		1723 13	3
Making		£ 2642 17	8

The following reports were read to the meeting:

Tamar Silver-Lead Mines, Oct. 25.—I beg to offer the following observations as a report of the operations and proceedings at your mines for the last 12 months:—I mentioned the last time I had the honour of addressing you, that the levels above the 125 were not worth prosecuting further south, excepting one or two, in order to ascertain whether the lode would prove worthy of more extended operations; but, that I confidently anticipated profitable results, and productiveness of the lode in depth, and in which I am happy to say I have not been disappointed; and, was it not for the necessary expenses in opening, as it were, a new mine, you would have received the profit in the form of dividends; there is also another point that should be mentioned—that the ground most productive of silver is south of the ends of all the levels, except the 125 and 135: the indications and productiveness of the lodes under, are such as to make me sanguine of the result, when they are driven sufficiently far south. The incline shaft has also cost the company a considerable sum of money, but without this the mine must have ceased working, for want of ventilation, and expenses of tramming the stuff to such an enormous extent of levels for raising up the formerly only shaft; this is now completed to the 125 fm. level, at an angle of 28°, producing a thorough ventilation, and facilitating the raising the ore, and will be of the most essential service in working the deeper levels to advantage; thus then we are opening a considerable extent of ore ground in the 135, 145, 160, and 175 fm. levels, and shall soon be to the depth of 190, having as many levels driving as there were when the mine was paying regular dividends, through ground congenial for silver-lead; and, in the four lowest levels, with a larger amount of unexplored ground than at any other time, with every prospect of its being equally productive.

At the north mine, we are sinking the shaft to the 85 fm. level at 13*l.* per fm., with the full expectation of the lode becoming more regular, and that the three branches which have been worked upon in the upper levels will, by falling together in the softer ground, become more productive; these branches are very highly mineralised, and the eastern one yielding very good ore. A whim engine has been erected, for facilitating the future working at a less expense than horse labour, and, when not using for drawing the stuff, is employed in crushing the picked ore, so as to economise the carriage to the south mine. Every attention is being paid to the most economical methods of dressing the ore, and accounts kept of the time employed by those engaged at surface; and I must observe, that the agents are constantly at their duty, and show as much interest as if they were working the mines, both north and south, on their own account, economising where they are able, or can to advantage—at the same time, working with that spirit which is requisite in all mining speculations.

Smelting Department.—The results of this department are known to you; at the same time it devolves on me to point out the threefold advantage it has been to the Tamar shareholders. When I first proposed the plan of smelting, I showed you that, in smelting the ore of the Tamar Mines at the price we did, it was an advantage to the mine of about 30 per cent. over what we had been paying for the average of the preceding 12 months, and the only plan we could adopt to obtain a remunerating price for the produce of the mine, was to smelt our own ores, and, in fact, figures will show that, had we not done so, we must either have abandoned the mine or called upon you for further capital. The second advantage is that, from the arrangement made by the directors, as regards the Tamar Mine, after paying off the borrowed capital, the works are now the property of the shareholders of the Tamar Mines, in a value which is quite equal to 10 per cent. per annum paid to the shareholders of the mine; and, thirdly, that it insures for the future the full value of the ores, as, although they (the ores) are put to public competition, it gives the power to the company to protect the price, by their bidding the full value, and also to have the advantage of the difference of an average of 5s. per ton over other smelters, in carriage, and, I may further add, of regular dividends in future to the Tamar shareholders, independent of what may arise from working the mine. I should be wanting in justice if I did not bear testimony to the great attention of the resident agents in carrying out my plans of operations, and also of the steady and good conduct of the men.—P. N. Johnson.

Tamar Silver-Lead Mines, Oct. 23.—In handing you our annual report, I beg to commence at the south mine. In the last 12 months we have sunk the engine-shaft 19 fms., which is now 8 fathoms below the 175 fm. level, and extended the different levels on the course of the lode 263 fms., nearly all of which have been productive; but the 145 and 135 fm. levels have produced the most ore within the last year; both of these levels are driven a considerable distance through a very profitable lode; and, when considering the 160, just bordering on the same run of orey ground, I consider our prospects are looking cheering, and have no doubt, from the present appearance, that the ensuing year will be a profitable one. The deepest level is the 175, and driven south about 33 fms., at which point the lode is looking promising, and in every level, as we proceed in depth, the lode retains its usual size and qualities, thereby showing that we may reasonably calculate on a profitable and lasting mine. At the north mine, at surface we have erected a steam-whim and grinder, and also enlarged the dressing floors. In the underground department, the engine-shaft is sunk 9 fms., and is now 9 fms. below the 70; this level, in the last year, has been productive of ore and ground that will be taken away on tribute; the lode in this end is 6 ft. wide, and producing good stones of ore. Here I beg to remark, the lode in the shallow levels is split into small branches, nearly all of which produce ore, but not to much value; and as they are approximating in depth, we anticipate more favourable results in the 80 fm. level. James Sprague.

The Chairman expressed his utmost readiness to afford any information in his power, as also to answer any questions which might be submitted by the proprietors, congratulating the meeting on the number assembled, as affording evidence of the interest taken by them in the undertaking. The report itself would best explain their position, which he thought they might congratulate themselves upon. He was happy to state, that the rules laid down at the smelting-works had been productive of much good, and that the number of men employed had been increased from 60 to 97—the operations being more extensive, and although the profit realised was not enhanced, yet, on the other hand, it had been in no way diminished. He might also observe, that with reference to the smelting operations, they had obtained an excess over the allowance made in the purchase of the ores of 2⅜ per cent., which was consequent on the system and arrangements observed in the several departments—such being the result of the operations of the past three-and-a-quarter years. He (the chairman) did not wish to arrogate to himself any praise for such result; but feeling that he was acting, in one sense, as a servant of the company, while, as an adventurer, he was interested in common with others, he considered it only right to state, that the saving to which he had referred arose from the several checks which had been made in the various departments under his control. The price obtained for the silver abstracted from their lead ores was 5s. 4½d. per ounce—an evidence at once of its purity. He would further observe, with reference to the smelting-works, that during the past 3¼ years since they had been erected, no less than 4000 tons of ore had been returned; and allowing 35s., or even say 30s., per ton saving having been effected by smelting their own ores, it was apparent that a profit of 6000*l.* had been realised; and when they looked to the accounts of the mine, it would be seen that, without such help, there would have been a loss of 5000*l.*, and thus the mine must necessarily have been abandoned, or fresh capital raised. This, however, had not only been rendered unnecessary by the success attendant on the smelting operations, but the sum of 9600*l.*, advanced for the prosecution of the works, had not only been returned, but a bonus of 4800*l.* paid—the works now virtually being the property of the Tamar mining adventurers. In speaking of the mine, he might observe that three lodes, seen in the 50 fathom level, were, from their several declinations, approaching each other, so that they might expect they would form a junction in the 85 fathom level. A dividend of 5 per cent., he considered, might be fairly calculated upon twice, if not thrice, during the forthcoming year; and that, at the ensuing Christmas, a dividend of from 5 to 7½ per cent. might be calculated upon. The stock of ores upon the works had been taken at 9337*l.* 16s. 6d. on the 1st of October, which, he had no hesitation in saying, would yield 1200*l.* to 1300*l.* profit. He did not wish that the meeting should press him to enter into detail—inasmuch that the smelting establishment must be considered as a trading company. Every information would willingly be rendered to adventurers; but he did not consider it prudent such should be published to the world, more especially as he believed they were working at a less cost, and under peculiar advantages, arising from locality and other circumstances, to which he deemed it unnecessary further to refer. A saving of fuel was one of the results which, as might be imagined, was no trifling consideration in itself. It was hardly necessary for him to say, that the smelting department, having paid off 14,400*l.* out of profits in the past three-and-a-quarter years, it was no bad thing; and he thought he might take upon himself to say, without entering into particulars, that it was in a position to yield a profit at this moment of at least 3000*l.* per annum.

It is unnecessary to detail the proceedings of the meeting, which was numerously attended—the several proprietors present evidently taking much interest; the observations made by the chairman, which we have endeavoured to condense, forming the main feature, as then existed but one feeling amongst those present—that of satisfaction with the state of the company's affairs, and the explanations afforded.

Mr. James considered that, aside from the ordinary resolutions passed at meeting of this nature, there was a duty he thought due on the part of the meeting which they should exercise towards their worthy chairman, who had originated the establishment of the smelting-works, and to which he (Mr. James) had been one of the earliest subscribers—that of expressing the thanks of the adventurers to that gentlemen, for the services he had rendered, and which had yielded such productive results to the company.

The Chairman having returned thanks, and some observations having been made by Messrs. Bawden, Trenery, Brown, and other proprietors, the meeting adjourned, after thanks having been given to the directors.

CASCADE MINING COMPANY.

The meeting convened for Monday last was adjourned until Monday next, in consequence of the notice not having been signed by the purser—it being contended that the secretary had no power. Fresh notices have been issued in due form. A conversation took place among those assembled, from which we gathered that nothing is doing at the mine, nor has there been for the past few months. The liabilities amount to about 100*l.*, for the liquidation of which, as also to raise capital for resuming operations, a further call will be necessary.

GADAIR MINING COMPANY.

A meeting of adventurers was held, on Thursday, the 26th instant, at the Queen's Arms Tavern, Cheapside, to receive a report from the committee appointed at the meeting held on the 7th Aug. last,

G. W. Blanch, Esq., in the chair.

The minutes of the preceding meeting were read, from which it appeared that the liabilities amounted to 500*l.*, to liquidate which a call of 8s. per share was then made, the same being payable on the 26th of that month; and a further call of 2s. 6d. per share, for prosecuting the workings, was also made payable on or before the 7th September. At that meeting, it was also resolved to limit the number of shares to 3540, the remaining shares not having been subscribed for.

The honorary Purser reported, that the calls so made had been responded to but by few shareholders—and hence the necessity of some decisive measure being resorted to for raising the funds necessary to meet the liabilities and demands upon the company. He believed certain gentlemen who were then present, and who had claims on the company for advances made by them on behalf of the company from their private funds, were willing that the calls made on the shares respectively held by them, should be written off—thus reducing the amount of liabilities. It was, however, essentially necessary that some active steps should be taken to settle the accounts due; and it would then become a question for the adventurers to determine what further steps they would pursue, as regards the active working of the mine. He begged to add, that he was apprehensive measures would be resorted to by certain creditors to enforce payment of their demands; while it was hardly necessary for him to observe that, under the Cost-book System, each adventurer was liable, no matter whether he had paid his calls or not; he should, therefore, recommend that the accounts be forthwith settled.

The Chairman, Mr. Truscott, Mr. Moss (the solicitor), and others, who had made advances on account of the disbursements on the mine, expressed their readiness that the calls due on their respective shares, amounting to 140*l.* and upwards, should be deducted from the amounts due them.—Mr. Moss submitted the lease under which the mine was worked, when it was determined, that a letter be addressed the lord by the hon. purser, expressive of the intentions of the company to resume active operations on an early day.

Letters from Mr. Mackillop, a holder of 700 shares, stating that he did not consider himself called upon to pay up the amount of calls made upon his shares, inasmuch that there was an understanding, on the formation of the company, that he should not be required to make any advance until a certain capital had been expended, were read, when an explanation was afforded by one of the adventurers, from which it appeared that Mr. Mackillop, who represented himself as the party possessed of the mine, had no right thereto, and that a distinct lease was obtained from the lord to the present body of adventurers—consequently, that Mr. Mackillop had not even a claim upon the shares which had been originally granted him.

Mr. D. L. Williams submitted, that a reduction in the number of active shares having taken place—they having been reduced from 6400 (the original number) to 3540, or little more than one-half—he considered that the parties who had formed the company, and who had received a certain number of free shares, should in like proportion reduce the number of shares appropriated to them. A conversation having arisen on the question, it was understoood that there would be no objection raised to such course.

Mr. Taunton submitted that a resolution should be come to, so as to bring matters to a close, as, without funds being forthcoming, it was absurd to talk of working the mine efficiently. There were certain demands, amounting to 350*l.*, or thereabouts, which must be met; and he, therefore, considered that, to prevent hostile measures being resorted to against any parties in default, it would be advisable to adjourn the meeting, or call a special general meeting, for the express purpose of declaring such shares forfeited as might be in arrear, or taking such measures for the recovery of the same as might be deemed prudent. He would, therefore, move that the honorary purser be instructed to call a special general meeting of the adventurers, to be held on Thursday, the 16th of November next, for such purposes; which, having been seconded, was carried unanimously.

The hon. Purser expressed his conviction, that if the call was not responded to, legal measures would be instituted against some of the adventurers by the creditors.—A vote of thanks having been given to the chairman and the hon. purser, the meeting adjourned.

WEST UNITED HILLS MINING COMPANY.

An adjourned meeting of adventurers was held at the Queen's Arms Tavern, Cheapside, on Friday, the 27th inst.,

Thomas Camplin, Esq., in the chair.

The minutes of the preceding meeting and adjournment were read, whereupon the Chairman proceeded to read a letter received from Mr. Ellery, the purser, in which he stated that the bill of Mr. Paul Rabey, jun., of 195*l.*, given for calls, had been paid by that gentleman's father, Capt. Rabey, of Wheal Seton, and placed to the credit of the adventurers. He, Mr. Ellery, complained that Capt. Rabey had not been at the mine for the past two months, to consult with Capt. Martin, the resident agent, on the operations of the company, and suggested that a meeting of adventurers should be held in two months from the present time, when he would attend with the cost-book and the requisite vouchers. He begged to enclose a letter received from Mr. Ripley, of the Stock Exchange, which was to the effect that he should not pay any calls which might be made—the understanding being at the time of the purchase of the shares of Mr. Paul Rabey, jun., that no calls would be made, or, in case such should be necessary, then that the same would be provided for by him. This, Mr. Ellery observed, was merely a "sample," as the various letters received by him on application for payment of calls were all to the same effect.

Mr. D. L. Williams wished to draw the attention of the meeting to the circumstance, that there was no cost-book submitted to the meeting, nor were the accounts and vouchers properly placed before them. He considered that the meeting was not legal, nor in strict accordance with the Cost-book System. It was not his desire, or intention, to cavil at the proceedings; but he was anxious whatever was done should be in due course.

Mr. Paul Rabey, jun., who, as the holder of five shares transferred to him by his father, but evidence of which was not before the meeting, being allowed to be present, stated that it made no difference whatever as to the cost-book being laid on the table, and that he considered the meeting might proceed to business. The chairman and proprietors present, however, holding a different opinion, and considering that matters had heretofore been too loosely carried on, the question was put to Mr. H. English, representing an absent proprietor, as to the opinion he entertained, he (Mr. English) being more conversant with matters of this kind, and presumed to understand the Cost-book System.

Mr. English would merely observe that, at all meetings of adventurers in mines carried on upon the Cost-book System, he had ever understood that the cost-book, as containing the minutes of the proceedings, and moreover, being the only authority recognised, should be laid upon the table, and the minutes entered therein; but, inasmuch that the meeting then held was not for the purpose of passing accounts or making any call, which could not, in the absence of the cost-book, be recognised, he would suggest that the proceedings of the day be confined to a general conversation, and that a meeting be held at a subsequent period, when the cost-book should be produced.

A statement of the liabilities and arrears of calls was then submitted, from which it appeared that the calls due at the last meeting were 438*l.*, which had, however, been since reduced 95*l.*, making the present arrears 343*l.* 3s. From a statement of liabilities forwarded by the purser, it appeared that there was now due to the bankers, 150*l.*; to Messrs. Harvey and Fox, 41*l.*; sundries, 80*l.*; and the August and September cost, 45*l.*

In the absence of any accounts, a question arose as to how far the meeting could entertain this statement, there being no evidence before it that an account had been opened with any bank, or that authority had been given.

Mr. Paul Rabey, jun., stated, that it was all a mistake, and that no account with a banker had been opened—the inference being that the purser had drawn on his own responsibility.

The Chairman considered that the meeting which was then being held was, in fact, nugatory, for they possessed not any accounts whereby they could be guided. He agreed with the several adventurers who had addressed the meeting, that the most proper course would be to adjourn the meeting, and request the purser to be present on that occasion, or to forward the cost-book and vouchers.—Previous to the question being put, Mr. Henry English, as the representative of an absent proprietor, wished to place in the hands of the chairman a letter he had received from the adventurer whose interest he represented, and which he would suggest should be quietly perused, it being with the chairman, after possessing himself of the contents, to submit the same, or otherwise, to the meeting. He (Mr. English) having other documents before him, to which he might have occasion to refer—at the same time that he did not wish to raise a discussion on a question which partook rather of a private or personal nature.

The Chairman having read the letter, observed that he saw no reason why its contents should not be made known to the adventurers assembled, and accordingly read it.

Mr. English, as the representative of the writer, begged to observe, that he was in possession of certain documents, to which he felt it his duty, under the circumstances, to refer; and accordingly commenced reading a letter, whereupon it was suggested, that as the matters treated on were of a private nature, and which appeared to be pretty well known by the adventurers present, it was not necessary to proceed with the perusal. Mr. Paul Rabey having *blushed* assent, the letter was withdrawn, it being understood that it referred to a transaction in which that gentleman was concerned, and to whom, in common justice, we think the opportunity should have been afforded of replying to the charges alleged.

A general conversation ensued, which terminated with the meeting being adjourned until the 14th November. Capt. Verran, who was present, and examined the mine, having made a report upon its principal features.

Thanks having been voted to the chairman, the meeting adjourned.

WHEAL CALSTOCK MINING COMPANY.

At a meeting of adventurers, held at Messrs. Tyeth and Luscombe's offices, Old Town-street, Plymouth, on Monday, the 23d inst.—J. P. Macqueen, Esq. in the chair—the accounts to August 31 were presented, showing—To call on 232½ shares, at 7*l.*, 1627*l.* 10s.—By mine cost to 30th April, 1256*l.* 7s. 10d.; for May, 60*l.* 16s. 4d.; June, 74*l.* 7s. 8d.; July, 76*l.* 6s. 7d.; Aug., 112*l.* 11s. 4d.; balance, 47*l.* 0s. 3d.=1627*l.* 10s.—The arrears of calls due amounted to 89*l.* 18s. The statement of liabilities and assets showed—Due to various merchants, 196*l.* 2s. 4d.; mine cost for September, to be paid 28th Aug., 50*l.*=246*l.* 2s. 4d.—By available assets, 89*l.* 13s.: leaving balance against the company, after paying all liabilities, and to be provided for, 156*l.* 9s. 4d. The accounts were allowed, and a call of 1*l.* per share made. The following report, from the purser, W. B. Collom, was read to the meeting:—

Wheal Ca'stock, Oct. 23.—Since the general meeting, held at the mine, on the 21st June last, at which time we were prosecuting with the utmost despatch the new or Trée's shaft in the orchard, by sinking and rising to communicate with the 50 fm. adit. This work has been satisfactorily accomplished; a whim erected for drawing away the stuff, and the shaft put in complete order. After the completion of this work, we resumed driving the level west on the course of the middle lode, and I have much pleasure in stating that the lode fully maintains its character—that of a large orey lode. The level has been driven 5 fms. on its course, from which several tons of ore have been broken, but the lode has been but partially taken down. A small cross-course in the present end intersected the lode. Some of the ore for your inspection, now on the table, was broken last night west of this cross-course. By the end of this month we shall be in a position to put men stoping the backs, and should the ore continue, which from present appearances there is no doubt of, we shall soon be in a position to have our monthly samplings. The cross-cut driven south from Trée's shaft, at the 50 fm. adit, with the intention to cut the south lode, is driven south of the middle lode 3½ fms., and from the appearance of the ground, and the increase of water, there is every reason to expect this lode will soon be cut—it was from this lode the old men returned several hundred tons of ore further east. Knowing this to have been a productive lode, increases the probability of meeting with ore when the lode is cut in this place, more particularly having broken a good pile of ore at a shallow depth over this place in sinking our shaft. After this work has been accomplished, it is our intention to drive north, to intersect the north lode, there being but a few fathoms to drive to cut it. Where this lode was seen at the surface, it presented the appearance of being a productive lode in depth. In the 30 fm. adit cross-cut north, no lodes have yet been met with, but from an extra quantity of water having lately been cut in the end, these lodes cannot now be a great distance off. From the air being very bad in this place, from the great length of level, our progress in driving has been slow. Taking a review of the future prospects of the mine, they are certainly most encouraging, having a good lode driving on in the deep adit, with every chance of cutting the lodes north and south of this one productive also, besides the probabilities of success in the 30 fm. adit, where the lodes will be cut at their junction. The amount of money spent from commencement to the 31st August is 1580*l.* 9s. 9d.; the liabilities, including the pay for September, are 246*l.* 2s. 4d., against which are assets of 89*l.* 13s.—leaving the mine actually in debt, 156*l.* 9s. 4d.

WHEAL FRANCIS MINING COMPANY.

A general meeting of shareholders was held, at the Stray Park Mines, on Friday, the 13th inst., when the accounts for 10 months ending 31st August, were presented, showing—To tutwork cost, 666*l.* 5s. 8d.; merchants' bills, 161*l.* 17s. 3d.=828*l.* 2s. 11d.—To Lady Basset (¼ dues), 267*l.* 9s. 9d.; water charge, drawing, &c., 352*l.* 17s.—leaving balance against Stray Park Mine adventurers, 268*l.* 5s. 2d.—The accounts were passed, and it was resolved that the monthly amount for agencies of this mine be fixed for the present at 6*l.* 6s. The Carn Camborne adventurers have agreed to give up a portion of their sett, to extend from their northern boundary southward to within 20 fathoms of the southern wall bounding Mr. George Smith's premises, and west to within 10 fathoms of the western boundary of Lady Basset's Camborne Vean, upon receiving from Stray Park and Wheal Francis adventurers the sum of 30*l.*

WHEAL HENRY MINING COMPANY.

At a meeting of adventurers, held at the mine, on Monday, the 23d instant, the accounts were produced, showing—To labour cost for July and August, 184*l.* 12s. 2d.; merchants' bills, 24*l.* 5s. 1d.; the Earl of Falmouth, 1-15th dues on copper and tin sold, 14*l.* 5s. 11d.=223*l.* 3s. 2d.—By ores sold, 28th September, 207*l.*; ditto tin, 7*l.* 9s. 3d.; sundries, 4s.—showing balance against adventurers of 8*l.* 9s. 11d.—The agent's report on the prospects of the mine was highly flattering.

REAL DEL MONTE MINING ASSOCIATION.

A special general meeting of shareholders was held, on Monday, the 23d inst., at the offices of the company, Duke-street, Adelphi—Sir Robert Price, Bart., in the chair.—The Chairman stated, that the meeting had been called with the view of confirming a resolution for winding up the affairs of the company, which had been agreed to at a former special meeting, but which required confirmation before it could be acted upon. The resolution was in the following terms:—"That it is expedient that this company, bearing the title of the Company of Adventurers in the Mines of Real del Monte, should be dissolved." That resolution had been carried unanimously; but as the packet for the present month had not yet arrived, it might be well not to take further decisive steps in the matter at present. After some discussion, this view of the case was generally acquiesced in, and the meeting adjourned for a week, in order to see what news the packet might bring.

GALVANISED IRON COMPANY.

A meeting of shareholders was held on Wednesday, at the London Tavern, in accordance with the provisions of this company's dissolution act. A short report was read, detailing the progress made in winding up the affairs; the directors and auditors were re-elected; and the meeting was adjourned to the 20th of December, to enable the directors to lay before the shareholders a detailed statement of the company's establishment, and the half-yearly accounts and balance-sheet, which circumstances had prevented being presented at this meeting in the form required by the Act of Parliament. It was stated that, notwithstanding the adverse condition of the iron trades, and the limited scale on which the works are now necessarily carried on, the trade operations of the company had resulted in a profit of several thousand pounds, and that negociations were pending for the disposal of a portion of the property; but the proceedings were entirely devoid of public interest.

[*For remainder of Meetings, see page 509.*]

REAL DEL MONTE MINING ASSOCIATION.

SIR,—I read with great interest the remarks in your Journal, regarding the Real del Monte Company, and concur with you in their import and bearing, as well as in the excellent advice given by you to the shareholders—for, in fact, the Real del Monte presents one of the finest mining fields in the world—the veins, or lodes, being very numerous, running from east and west, north and south, and all of them, more or less, productive of ores of silver. I have been, since 1831, deeply interested in this undertaking, presenting as it did then—nay, does now—advantages superior and greater than almost any other undertaking of equal magnitude. Circumstances, which it were now useless to advert to more particularly, compelled the directors to dissolve the company. This dissolution resolved upon, relieves it from the enormous debt of 450,000*l.*, and, therefore, *now* is the moment to make a strenuous and determined effort to resuscitate this company. I have already consulted with several influential proprietors, and the result is, that I have determined to make that effort; and feel satisfied that I can fully prove, to any one interested in the revival of the undertaking, that, by the proposed dissolution, and the cancelling of a debt of half a million of money, it is the interest of the *old* shareholders to support the *new*. Be that as it may, I am prepared to make an energetic effort, in conjunction with my friends—large holders; and, immediately upon the dissolution, to submit my plans to the public. As you have invariably upheld, and supported liberally, all mining matters, both at home and abroad, I feel satisfied that you will give this a place in your widely circulating Journal.

Warnford-court, Throgmorton-street, Oct. 27. JOHN H. FAGAN.

WEST UNITED HILLS MINING COMPANY.

SIR,—Having attended the meeting of adventurers held this day, at the Queen's Arms Tavern, I cannot but express my opinion that the substance of the letters referred to at that meeting, reflecting on Mr. P. Rabey, jun., should be given to the public, as otherwise the inferences drawn are calculated to be prejudicial to that gentleman. I have no doubt, if the case were properly put before the public, Mr. P. Rabey, jun., would be able to explain all matters with regard to the charge put forward. I do not think it is fair to attack any man by way of inuendo.—W. L. D.: *Queen's Arms Tavern, Oct.* 27.

THE AUSTRALIAN MINING COMPANY.

SIR,—By the overland mail we have advices from Adelaide to July 15th, and answers to our letters of March 15th. We have advice of the shipment of our first cargo of our own copper, the produce of the Tungkield Mines, said to be 30 to 40 per cent. produce. There would be raised, in all, probably, by the end of the year, 1000 to 2000 tons of rich ore. Cobalt had also been found in abundance.—J. A. JOSEPH, Secretary: *Oct.* 26.

NORTH BRITISH AUSTRALASIAN COMPANY.—Our readers will possibly recollect that, some time ago, we noticed that the dispute between this company and Messrs. Whitaker and Co., relative to the grant made to these gentlemen between high and low-water mark, had been decided in the law court of the colony in favour of the former. Messrs. Whitaker then came home, and appealed to the Colonial Office; and we understand that letters have just been received from Mr. Taylor, the manager of the company, stating that they had returned to New Zealand with steam-engine, men, and materials, to recommence mining below high-water mark on Kaw-aw, with titles from Lord Grey, but that Governor Grey had forbidden them to proceed, until he shall have corresponded with the home Government, being persuaded that they had procured their titles by misrepresentations. The Government survey of the island amounts to 4600 acres. The smelting is stated to be doing a little better, but that there is neither ore nor copper on the way home. This is the only communication received by the company for four months.

WHEAL COMFORT.—A meeting of adventurers was held at Wheal Buller account-house, on Friday, the 20th inst., when the accounts, of which the following is an abstract, were submitted and allowed, showing—Balance from last account, 1*l.* 7*s.* 7*d.*; ores sold to the end of July (less dues), 1451*l.* 5*s.* 6*d.* = 1452*l.* 13*s.* 1*d.*—Labour cost to Sept. 30, 1036*l.* 16*s.* 1*d.*; merchants' bills, ditto, 324*l.* 13*s.* 10*d.* = 1361*l.* 9*s.* 11*d.*: leaving balance in favour of the adventurers, 91*l.* 3*s.* 2*d.*—There have been sold also in August and Sept., ores amounting to about 844*l.*, which is not in cash.—The mine was represented by the agents to be looking very well, and to have increased in value since the last account in June.

WHEAL PINK.—(*From a Correspondent*).—I am surprised at not findin Wheal Pink (Wheal Clinton and Wheal Pink consolidated) in your share list—the most promising mine certainly in the parish of Gwennap. An adit was driven 80 fms. or more at the depth of 40 fms., over beautiful gossan, mingled with ore. Since then an engine has been erected, at the expense of 2000*l.* and upwards, and a shaft has been sunk 24 fms. below that adit, in which there has been good ore found, as well as in the levels, which have as yet been driven only a short distance; but even at the present standard, the produce, which is increasing, nearly pays the cost. A lode, a few fms. south of the new lode, which is being explored, rendered a large quantity of ore formerly in the adjoining mine of Wheal Garland, where it was worked only above the adit level. Two lodes north, also at a short distance, which have been seen only on the backs, are of high promise, and, no doubt, will ere long be intersected. The pursers have, I believe, a majority in the concern, and are not fond of publicity; but it is hard that the innocent out-adventurers should suffer, and not have an opportunity of making the most of their property.

EAST SHEPHERDS (formerly Pencorse).—The steam-engine (31-in.) is in course of erection, and will be at work in the course of a month from the present time. The captain's report to-day states, that a discovery has been made of a lode in the quarry, south of those already discovered in the adit, which presents a very promising appearance, which, by its caunter direction being north-east and south-west, will intersect several of the other lodes—one of which will intersect the caunter lode in a few fathoms, driving east of the present end. The engine-shaft is complete 2 fms. below the adit level, and will be resumed sinking immediately by means of a whim, by which it is hoped that 10 fathoms below the adit may be sunk prior to the engine going to work.

WHEAL GRAY.—This mine, which was known under the appellation of Old Moor, situate near the Rocks Mine, St. Austell, is now in course of working with a 36-inch cylinder steam-engine, which went to work about two months since; two shafts have been put down the engine-shaft 18 fms., and the flat-rod shaft 14 fms. In the cross-cut from the latter a lode has been intersected, 18 ft. big, and levels are being extended east and west on the south side of the lode, producing good work. In the whim-shaft west good work is raising, and which will communicate with the western level in a few days. In the cross-cut from the engine-shaft, to a lode ranging north, a large quantity of water is issuing, so as to drown the engine for some hours, and thus giving reason to suppose that they are nearly approaching the lode. This lode has been worked only to the depth of a few feet from surface by the former adventurers, and produced tinstuff, yielding 10 thousand black tin to the 100 sacks (16 gallons). Several openings were made, but, from want of machinery, were not prosecuted.

THE TUBULAR BRIDGE OVER THE MENAI STRAITS.

A most mischievous and thoroughly unfounded statement appeared in the *Liverpool Times* of Thursday last, and has been copied into other journals, relative to the progress of this great national work. Our contemporary, who, we are quite satisfied, has unconsciously lent itself to the publication of the statement, says:—"We hear that the works at the Britannia railway tube, across the Menai Straits, have been suspended for the present. Yesterday week upwards of 100 men were discharged, and we hear that on the following day the remainder were turned adrift. Deficiency of funds is stated to be the reason." The statement is, we are assured on authority, utterly groundless. There is at the present moment a large and efficient body of men fully engaged on these tubes, and the contractors (Messrs. Mare and Co.) have full instructions from the company to complete the works with all possible dispatch. Even the idea of suspending the works has never been, nor is likely to be, entertained.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.—A meeting was held yesterday, October 27th, at the Philosophical Rooms, Cannon-street, Birmingham, for the purpose of adopting resolutions with regard to the meeting of the association, which is appointed to take place in that town in September next. Mr. Geach, the mayor, occupied the chair. Mr. Phillips, the secretary of the association, then entered at great length and with great clearness into the history, the present condition, and the prospects of the association. This speech was listened to with great attention, and seemed to excite general approbation. The meeting was afterwards addressed by the Rev. J. C. Miller, rector of Birmingham, the Rev. J. C. Barret, the Rev. J. A. James, independent minister of Carr's-lane, W. Wills, Esq., W. Chance, jun., Esq., J. Russell, Esq., and other gentlemen interested in promoting the objects of the institution. They were all unanimous in offering accommodation to the distinguished scientific guests who would visit the town on that occasion. The meeting will take place the week after the Birmingham festival.

THE COLLIERS.—We understand that several of the master colliers in the neighbourhood have intimated their intention of reducing the wages of those in their employment. In consequence of this resolution, meetings of the colliers have been held during the week, but we have not been able to ascertain there-sion.—*North British Mail.*

IRISH SOUTH-EASTERN.—The works on the second division of this line, from Bagnalstown to Kilkenny, have been suspended. The part recently opened between Carlow and Bagnalstown yields a fair proportion of traffic.

THE BURRA BURRA MINE, SOUTH AUSTRALIA.

We have been favoured with the following letter, just received from Adelaide, which contains an interesting account of the present appearance and prospects of this immensely profitable speculation:—

Adelaide, July 10.

TRIP TO THE MINE.—Since my last, we have made a trip to the Burra Burra, and certainly the most delightful journey we ever had. We started on the 10th and returned on the 15th June last, and had very fine weather all the time; we quite enjoyed it. There is capital accommodation now at the house where we always put up, so that we are under no obligations to officers, &c. There is a room exclusively for the directors' use, and it is one of the best hotels in the colony, and reflects great credit on the proprietors for their liberal outlay. We spent the first day in surveying the surface; and such a sight! We have more ore now on the surface than at any previous period. Roach calls it 7000 tons—I think it is more—at least 4560 tons of which are cleaned ores. The surface work is very trim and neat. We have six whims at work; and, altogether, the surface reflects great credit on Roach and his assistants. The next day we went below, and paid most attention to the new ground, as the workings are now so extensive, that to attempt to go over the whole of them would be attended with too much fatigue. The ground in the neighbourhood of Peacock's shaft is of the most promising description; the lodes are all making south, and the country is full of malachite and blue carbonate. The discoveries made hereabouts, within the last two months, are indeed encouraging. There is an excellent pitch in Graham's shaft—red oxide. When let, there was not a stone of ore in sight, and when we were down, the pitch had been worked about eight days, and the two men were quite surrounded with ore of the most splendid quality, above, below, and, in fact, all about their pitch. They will make a good thing of it, but we shall make a better. The opinion arrived at by all our party was, that the Burra Burra never looked so well as she does now, and this is corroborated by most of the miners. You will say, the old story, "better than ever," and it is so. After coming up from below, we had a grand christening match, in naming several of the shafts—viz.: "Ayer's Shaft," the new shaft, south-west of Graham's; "Roach's Shaft," the new engine-shaft. This honour was conferred on Roach as a mark of especial favour, and it was thought it would induce him to take greater interest, if that is possible, in the shaft, &c. The effect of this distinction almost turned his brain; I never saw a man so delighted. "Ellis's Shaft" is a new shaft to be sunk in the flat leading down towards the smelting-house. Roach has great faith in this ground producing, and strongly recommends the trial. "Burr's Shaft," a shaft high on the hill, by the old watchman's hut. "Waterhouse's Shaft" (the old one done away with), beyond Peacock's, just behind the timber-yard. "Brown's Shaft," the shaft on the hill, going towards Wren's, formerly Harvey's. We made quite a performance of it; and it went off very well indeed. Our raisings, for the last two months, were 2600 tons; everything is going on well; the ore is of good quality—very little of the dark ore, not above 300 or 400 tons. The ore is mostly smalls, and that is the stuff for dividends. I was pleased (and I express the sentiments of all the party) with the appearances altogether. The township is indeed a town. You will be surprised—I felt so; and it is only some six months since we were there together. I hope, in nine months more, to be making another trip with you.

JUNE SURVEY (for two months) went off in true Cornish mining style—more farthing pitches. The result was 50 tribute pitches, at an average of 2*s.* 6½*d.* in 1*l.*; 3 ton work ditto, at 35*s.* 8*d.* per ton; 10 tutwork ditto, at 65*s.* per fm.; 1 ditto to sink, at 55*s.*; and 2 ditto, ditto, at ½*d.*: total number of pitches, 66; number of miners, 225. I need scarcely add that it is expected to be a very productive survey.

DIVIDENDS.—The sixth dividend (200 per cent.) was paid on the 1st June last; and, from calculations I have just been making, I can guarantee you dividends, at the same rate, for the next 2½ years—something like 40,000*l.* for you. I suppose this will do?

SHIPPING.—We are doing very well in this department. We shall manage to get rid of it all before next season sets in. We have down 3200 tons; and we have tonnage engaged for 1800 tons: and Bunce and Stocks are in treaty for the purchase of 1000 tons, to load two ships they have chartered at the enormous rate of 5*l.* per ton, to London.

ACCOUNT SALES.—We continue to receive capital account sales of the ore; the Hope's turned out much better than we expected.

SHARES.—Shares are very firm at 150*l.* cash; more buyers than sellers. I am satisfied that the shares are the best investment here; and every week they are getting into hands that will not part with them.

Everything continues much the same—a new mine starts about every other week, lives a fortnight or so, and is then heard of no more.

DEVON GREAT CONSOLS.

It is not often that we can furnish a detailed report of these mines; we therefore feel gratified in being able to give that of Capt. Thomas Kitto (who has recently inspected the sett), which has been circulated among the shareholders.

WHEAL MARIA.—The sump shaft has been sunk to the 80 fm. level, at which a cross-cut is now being driven to cut the lode by four men, at 5*l.* per fm., which is expected very soon. There is also driving a level (the 40) east of John's cross-cut on a newly discovered lode, or, as I rather call it, a branch, because there is no comparison between it and the old main lode, this latter being from 12 to 20 feet wide, and the former reaching 18 to 20 inches only. The branch in question is about 5 fms. south of the old main lode, and has a most promising appearance, and is also productive of copper ore of exceedingly good quality. This level is driving by four men, at 3*l.* 10*s.* per fm., and the branch referred to in the present end is worth about 30*l.* per fm. There is also west of Morris's engine-shaft a 50-fm. level cross-cut, driving to cut the same branch by two men, at 2*l.* 15*s.* per fm.; and also another cross-cut in the 40 fm. level, east of Gard's engine-shaft, is driving to cut same branch by two men, at 1*l.* 15*s.* per fm. In this concern there are 11 pitches in operation, at an average tribute of about 5*s.* 1*d.* in 1*l.*, employing in all about 38 hands.

WHEAL FANNY.—The eastern engine-shaft is sinking below the 45 fm. level, by nine men, at 20*l.* per fm., at the present deepest point of which the lode is altogether about 8 ft. wide, and will produce 12 tons of ore per fm., worth 5*l.* per ton, equal to 60*l.* per fm.; the 45 fm. level, west of this shaft, is driving by four men at 3*l.* per fm., and in the present end the lode is worth 20*l.* per fm.; in the 45 fm. level, driving east of same shaft, by four men, at 9*l.* per fm., the lode is 8 ft. wide, and composed of spar, mundic, prian, and copper ore; and, although poor at present, I expect a change in it soon, judging from its component parts and size. There is a 35 fm. level driving east of same shaft, by six men, at 9*l.* per fm., in which the lode is worth 30*l.* per fm.; but a little behind the present end, for about 12 fms. in length, it is worth 60*l.* per fm.; in a winze sinking below this level, the 35, west of same shaft, by six men, at 7*l.* per fm., the lode is worth 30*l.* per fm. In the western engine-shaft, sinking below the 45 fm. level, by nine men, at 13*l.* per fm., the lode is worth 40*l.* per fm. The 45 fm. level, west of this shaft, is driving by six men, at 5*l.* 10*s.* per fm.; the lode in the present end being worth about 8*l.* per fm.; this end is as yet 14 fms. only from shaft. There is a 35 fm. level driven west of same shaft 70 fms., and still driving by four men at 1*s.* in 1*l.* tribute; this end will produce 40 tons of ore per fm., worth 5*l.* per ton, equal in all to 200*l.* per fm. There are some who say that it will produce 50 tons per fm., worth 6*l.* per ton, which would be 300*l.* per fm.; I believe, however, that for 20 fms. in length behind the present end, the lode is worth 200*l.* per fm. The 25 fm. level is driven home to the great cross-course. Here I beg to remark, that this great cross-course heaves south, going east on the course of the lode 80 fms. and is what miners call a right-hand heave. In this concern, Wheal Fanny, there are 12 pitches at work, by 43 men, at an average tribute of 6*s.* 11*d.* in 1*l.*

WHEAL ANNA MARIA.—Here the engine-shaft is sinking below the 50 fm. level, by nine men, at 3*l.* 10*s.* per fm.; its present depth below the said level being 9 fms., where the lode is a very good course of ore, as it has been for all the way in sinking, being 12 ft. wide, very rich, worth 200*l.* per fm. There are four pitches working in this concern by 20 men, at an average tribute of 7*s.* 6*d.* in 1*l.*

WHEAL JOSIAH.—The 50 fm. level is driven east of Hitchen's engine-shaft 90 fms., but is not driving at present—price of ground 3*l.* per fm.; and the lode in the end about 4 ft. wide, composed of prian, peach, mundic, capels, and copper ore; this end has a kindly appearance and ought to be driven. The 60 fm. level, east of same shaft, driving by two men, at 5*l.* per fm., is in about 100 fms. in all therefrom; in the present end the lode is 4 ft. wide, and worth from 20*l.* to 25*l.* per fm., having a very kindly appearance. Hitchin's engine-shaft is sinking below the 70 fm. level by nine men, at 14*l.* per fm., the lode in which is altogether 12 ft. wide, and will produce 20 tons of ore per fm., worth 5*l.* per ton, equal to 100*l.* per fm.; the shaft is now down 8 fms. below the 70 fm. level, having a good course of ore for all the way in sinking; the 70 fm. level, east of same shaft 24 fms., is driving by six men at 7*l.* per fm.; the lode in the present end being poor, and same run of capel as passed through in all the levels over, which had a good course of ore. I believe there will be the same again after driving through the capel. Richards's engine-shaft is sinking below the 70 fm. level by nine men, at 15*l.* per fm., being now down below said level about 9½ fms., where the lode is 12 ft. wide, and will produce 10 tons of ore per fm., worth 6*l.* per ton, equal in all to 60*l.* per fm.; the 70 fm. level, west of this shaft, is driving by six men, at 2*l.* per fm.; the lode in the present end being from 8 to 10 ft. wide and worth 100*l.* per fm.; the first 20 fms. of this level will set for 3*s.* or 4*s.* tribute, but the last 10 fms. will set for 6*d.* The pitches working in this concern are many, by 36 hands, and at an average tribute of 4*s.* 6*d.* in 1*l.*

Computed monthly raisings, 1350 tons	£8000	0	0
" " Cost on same*	3500	0	0
Profit (at present low standard)	£4500	0	0

Before I conclude, I beg to say that these great mines are conducted in a very systematical and mining-like way. I see nothing but prudence and economy in every department.—THOMAS KITTO.

* This does not include dues, rates and taxes, cost of timber and iron, and share of general expenses, estimated at about 1000*l.* more.

WHEAL FORTESCUE.

[Last week we published some remarks respecting the above mine, and which the purser deemed a personal reflection. That gentleman has written a letter in answer, but not being addressed to us, we do not consider ourselves justified in making use of it in full, though, being a fair and straightforward reply, we think we cannot err in giving such extracts as touch on the remarks,—and which, in our opinion, exonerates him from blame, if any should exist.]

SIR,—When the adventurers in Wheal Fortesque have not thought it necessary to print and circulate the reports, prospects, and proceeding of meetings, I have always, as the next best thing (as it appeared to me), sent copies of them to Mr. Taylor's office, for the inspection of himself and friends; who, I believe, hold a majority of London shares, and have also sent copies for insertion in the *Mining Journal*, and I am indebted to the proprietors of that Paper for their appearance from time to time. The paragraph to which I allude complains, that "the London and other out adventurers can obtain no authentic information of the working position and prospects of the mine;" now, to this my reply is, first, that I am under the direction of meetings, as to printing reports, &c.; but I may venture to challenge any single adventurer, though holding but one share only, to prove that he has ever applied to me for any information, and has not had the most prompt and fullest reply. It has been no uncommon thing for me to receive from adventurers holding a single share, requests that I will send them a full account of all proceedings of a meeting, copy of report, statement of accounts, a full list of adventurers (100 in number nearly), and of adventurers in arrear, &c.; and I may again repeat, that with such requests I have invariably, and at once, compiled; and if you can bring an adventurer who will contradict this, I may venture to promise to pay him every penny he has expended upon the mine, and twice over. How then can a shareholder make out that he can obtain no information?

The observations as to salaries are, I think, unworthy of notice. As to myself, the poor girls who stitch, stitch, stitch, for 6*d.* a day, or whatever it is, do not more hardly earn it than I do my 2*l.* 2*s.* a month. The captains are S. Seccombe, of Liskeard, as visiting captain, and Capt. Key, resident captain; of these I have nothing to say at present, more than that if the mine is to be managed there must be managers, and if employed they must be fairly paid, and if over paid their salary ought to be reduced.

The only further observation that I have to make is that, in what may be termed the editorial summary of the paragraph, a recommendation that a meeting of the London shareholders be convened. Now, I put it to you, whether it would not have been more like fair play, if, instead of this—or, indeed, instead of inserting the article—the Editor had said, "first write to the purser for the information you want, and if you find any difficulty in obtaining it, let us know, and we will see what can be done." As the matter stands, I feel that injustice has been done me. I am in a situation to make such hazardous to my character, and of this I am certain, that they must prove highly prejudicial to the interests of the mine in question, and perhaps to mining in general. J. MATTHEWS.

Tavistock, Oct. 26.

CORNISH STEAM-ENGINES.

The number of pumping-engines reported for the month of Sept. is 25—the quantity of coals consumed being 2038 tons, lifting, in the aggregate, 18,000,000 tons of water 10 fathoms high—the average duty of the whole is, therefore, 52,000,000 lbs. lifted 1 foot high by the consumption of a bushel of coal.—The following have exceeded the average:—

Mines.	Engines.	Length of stroke	Load in pounds.	Load per sq. inch. on plst.	Strokes per min.	Consump. of coal in bus.	Million lbs. lifted 1 foot by consump. of 1 bush. coal	Average quantity of water per min.
Great Work ..	Leeds's 60-in.	9·0	47,020	12·9	8·2	2350	57·7	195
East W. Crofty	Trevenson's 80	10·33	80,938	12·0	3·5	1822	62·3	196
East Pool	—— 60-inch.	9·75	38,534	11·1	3·7	1080	54·5	165
Poldice	Sims's 85-inch	10·0	82,138	10·1	6·3	3456	53·0	447
Andrew and Nangilles	—— 70-inch.	10·0	51,492	10·7	3·5	1344	54·2	213
United Mines	Cardoza's 90-in.	9·0	99,468	13·7	5·6	3868	58·2	
Ditto	Eldon's 30-inch	9·0	13,631	16·0	8·0	600	68·7	1886
Ditto	Loam's 85-inch	10·0	89,320	11·8	6·3	3878	58·2	
Ditto	Hocking's 85-in	10·0	99,093	14·6	7·7	5313	59·5	
Tywarnhayle..	Gardiner's 80in.	10·0	68,517	10·9	8·1	4014	54·8	599
East Wh. Rose	Penrose's 70in.	10·0	58,609	13·6	3·7	1364	71·4	552
Ditto	Michell's 70-in.	10·0	62,699	14·6	3·7	1440	72·4	

NEW PATENTS.

W. Brown, Cambridge Heath, Middlesex, weaver, for improvements in manufacturing elastic stockings and other elastic bandages and fabrics.

Soren Hjorth, Jury-street, Aldgate, for certain improvements in the use of electro-magnetism, and its application as a motive power, and also other improvements in its application generally to engines, ships, and railways.

J. Clarke, Glastonbury, Somerset, manufacturer, for improvements in the manufacture of boots, shoes, and clogs.

W. Longmaid, gent., Beaumont-square, Middlesex, for improvements in treating the oxides of iron, and in obtaining products therefrom.

W. Church, civil engineer, and T. Lewis, woolen draper, both of Birmingham, for a certain improvement, or certain improvements in machinery, to be employed in making playing and other cards, and also other articles made wholly or in part of paper or pasteboard, part or parts of which said machinery may be applied to other purposes where pressure is required.

P. Fairbairn, Leeds, machine maker, for improvements in machinery for heckling, carding, drawing, roving, and spinning flax, hemp, tow, silk, and other fibrous substances.

J. Burrows, Haigh, near Wigan, Lancaster, engineer and draughtsman, and G. Holcroft, Manchester, consulting engineer, for certain improvements in, and applicable to steam-engines in the machinery, or apparatus belonging thereto, in the construction and arrangement of boilers for the generation of steam, and in the furnaces and flues used in connection therewith, parts of which improvements are applicable to other similar purposes

DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

C. Rowley, Birmingham, handle for umbrellas, parasols, and walking sticks.
B. Verity, King-street, Covent-garden; J. C. Haddan, Lincoln's Inn-fields, gas burner.
H. Pershouse, Birmingham, inkstand.
W. B. Moffatt, Spring-gardens, diaphragm double sewer for separating or combining house drainage and surface drainage.
J. Rogers and Sons, Sheffield, spring-tang table knife.
S. Green, Princes-street, Lambeth, parts of a water closet.
W. Kirkwood, West Thistle-street-lane, Edinburgh, piston-cock.
W. Southam, the Mills, Nuneaton, self-acting air conductor & ventilator for mill-stones.
E. Rowland, Belfast, high-pressure steam-gauge and self-acting blast regulator,
J. Roberts, Eastcheap, London, horticultural double tile.
J. T. Tucker, Exeter, universal broach protector.
J. Dubois, Paulton-terrace, King's-road Chelsea, annulus scapus, or elastic ferule or wrapper for taps.
Bourjeaard, Davies-street, Grosvenor-square, elastic suspensor.
J. A Barnettt, Salford, treble symbolic indicator.
C. Parker, Birmingham, whip-holder.—*Mechanics' Magazine.*

RAILWAY TRAFFIC RETURNS.

Name of Railway.	Lgth. Rway.	Present actual cost.	Price per share	Last Div.	*Traffic Returns.* 1848	1847
Belfast and Ballymena	37¾	—	—	—	£409	—
Birkenhead, Lancashire, & Chesh.	19	997,284	37	5 *p. c.**	775	877
Caledonian	141	3,993,732	17¾	—	5071	—
Chester and Holyhead	84	3,014,602	20½	4	—	—
Dublin and Drogheda	35½	774,875	28	—	819	806
Dublin and Kingstown	7¾	395,915	—	6	727	789
Dundee, Perth, & Aberdeen Junc.	47½	544,554	25	8	945	—
East Anglian (Lynn to Ely)	67½	1,167,104	4¾	—	817	—
East Lancashire	44	1,733,915	13½	5	1541	906
Eastern Counties and Norfolk	307	10,364,506	12¾	4	16046	14843
Eastern Union	50½	1,522,232	20	—	1431	1163
Edinburgh and Glasgow	57½	2,556,889	36½	6	3335	5746
Edinburgh and Northern	78	1,722,213	15½	4*	1807	670
Glasgow, Paisley, and Ayr	102½	2,286,353	60	4	2606	2703
Glasgow, Paisley, & Greenock	22½	848,328	14¾	4	981	1002
Gt. Southern & Western, Ireland	131	2,844,897	21	4*	4304	2151
Great Western	290¾	11,311,069	73½	7	20120	20909
Kendal and Windermere	10½	174,600	23	—	—	154
Lancaster and Carlisle	70	1,476,102	40½	4	2556	1548
Lancashire and Yorkshire	172½	8,242,628	57–8	6	10959	10089
London and North Western	435	22,835,120	106	7	43047	41918
London and Blackwall	4	1,299,675	4¼	1-12	665	933
London, Brighton, & South Coast	163½	6,284,812	26¾	2½	9921	9005
London and South-Western	215	7,139,733	37	6	10281	8678
Londonderry and Enniskillen	14½	154,643	16	—	143	121
Manchester, Sheffield, & Lincolnsh.	58	4,651,093	47	5	2845	2343
Maryport and Carlisle	28	443,974	40	—	—	666
Midland Company	463½	13,254,006	73½	6	22391	22863
Midland Great Western (Irish)	50	725,332	10	4*	1217	1058
North British	99	3,163,450	13⅝	5	2581	2451
Scottish Central	45½	1,245,496	21	—	1041	—
Shrewsbury and Chester	23	780,272	11½	5	1340	630
South Devon	50½	1,789,351	12	—	1564	804
South-Eastern	165½	7,389,322	21½	6⅝	10204	10981
Taff Vale	38	820,056	125	6½	1984	1816
Ulster	36	684,684	45⅝	—	—	812
Whitehaven Junction	12	150,879	9½	3	202	184
York, Newcastle, & Berwick	270	5,038,255	23	8	13124	11596
York and North Midland	265	4,179,309	46	8	8109	9743
FOREIGN RAILWAYS.						
Amiens and Boulogne	76½	573,338	5½	4	1390	615
Antwerp to Ghent (monthly)	31	—	—	—	—	—
Marseilles to Avignon	71½	—	8½	—	—	—
Dutch Rhenish	57½	—	¾	—	—	—
Northern of France	211	2,000,000	6⅝	4	16800	14163
Orleans to Bourges (Central)	107½	—	—	—	2338	2476
Orleans to Tours	72	600,000	32½	4	3074	4096
Paris and Orleans	82	2,011,720	25½	12½	8580	9290
Paris and Rouen	85	2,082,916	15½	11½	5671	8114
Rouen and Havre	59¼	—	6⅝	—	1971	3179
Strasburgh and Basle (monthly)	88	—	6	1½	—	—
West Flanders ..... (ditto)	—	—	¾	3	1120	—

* Interest.—Total for last week, £220,334, being an increase of £30,081 over last year.

EXPORTATION OF THE PRECIOUS METALS.—The following are the official returns of the exports of gold and silver from the port of London for the last week:—Silver bars to Rotterdam, 229,800 ounces; ditto to Belgium, 5000—Silver coin to Belgium, 76,000; ditto to Rotterdam, 111,000; ditto to Port Adelaide, 480—Gold to Belgium, 290; ditto to Hamburgh, 500.

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning Eleven o'clock.

Bank Stock, 7 per Cent., 187	Belgian, 4½ per Cent., —
3 per Cent. Reduced Ann., 84¾ ⅞	Dutch, 2½ per Cent., 44¾ ⅞
3 per Cent. Consols Ann., 85¾ ⅛	Brazilian, 5 per Cent., 72½
3½ per Cent. Ann., 85 ½	Chilian, 6 per Cent., —
Long Annuities, 8⅝	Mexican 5 per Cent., 20½ ¼
India Stock, 10½ per Cent., 234 6	Russian, 5 per Cent., 98½
3 per Cent. Consols for Acct, 85¾ 5 ⅞	Spanish, 5 per Cent, 11
Exchequer Bills, 1000*l*. 2d. 41 42 39 pm.	Ditto 3 per Cent., 22½ 2

MINES.—A fair amount of business has been transacted in the mining share market during the week; but the mines have not been so varied as usual.

There has been an active inquiry for Devon Great Consols during the past ten days, and several shares have changed hands at advanced prices; nor were we surprised on reading the report of Capt. Thomas Kitto, who has recently inspected these extraordinary mines (whose report will be found in detail in another column). At Wheal Maria the shaft, it appears, is down to the 80, and a cross-cut extending to intersect the lode, which they expect is very near driving on a branch from 18 to 20 in. wide —the present end is worth 30*l*. per fm. There are also 11 pitches working, averaging 5s. 1d. in 1*l*. tribute. At Wheal Fanny, the shaft is down below the 45 fm. level, going through a lode producing 12 tons of ore per fm., and equal to 60*l*. per fm. The 35 fm. level west is being driven by four men, at *one shilling* in 1*l*. tribute; the end will produce 40 tons per fm., estimated at 200*l*. per fm. Other levels are looking remarkably well, and productive. Here there are 12 pitches working, at an average tribute of 6s. 11d. in 1*l*. At Wheal Anna Maria, the shaft is down 9 fms. below the 50, at which level the lode is 12 ft. wide, worth 200*l*. per fm.; here there are four pitches working, at an average tribute of 7s. 6d. in the 1*l*. At Wheal Josiah, Hitchens' shaft is going below the 70, through a course of ore, worth 100*l*. per fm.; the 60 end, east of same shaft, is worth from 20*l*. to 25*l*. per fm. Richards's engine-shaft is also under the 70, in a lode worth 60*l*. per fm.; the 70 end west is worth 100*l*. per fm. The last 10 fathoms in this level will set for *sixpence* in 1*l*. Taking the present monthly returns at 1350 tons, and the present low standard, a clear profit of 3500*l*. can be realised.

Shares in the following mines have been transacted during the week—viz.: Devon Great Consols, East Wheal Rose, West Caradon, Mary Ann, Trehane, Tamar, Tregordan, Wheal Trelawny, West Providence, Pennant, &c., &c.

In consequence of East Wheal Rose having been quoted last week at a price considerably under what we learn some shares were done at previously, several buyers appeared in the market for them at that price—but no sellers. One buyer states in his application—"I have seen Capt. C—, the underground agent of East Wheal Rose, who assures me the mine is looking as well now as it has for many months past, and there is no depreciation in any part of the mine." We can only state, that the quotation was furnished by a party on whom we hitherto placed the highest confidence. We invariably expect that those who furnish us with quotations are prepared to do business at the price given.

The adventurers of the Caradon United Mining Company held a meeting on the 19th inst., when it was recommended that the future operations should be limited, in consequence of calls not being duly responded to, and thereby causing great arrears, to the injury of the other adventurers. The agent's report strongly recommends the continuance of the working, the appearance of the several lodes fully warranting the same.

The Callington Mining Company held their quarterly meeting on Wednesday last; by the statement of accounts presented we find a loss of 271*l*. 18s. 7d. on the three months' workings. The united returns of silver-lead and copper ores amounts to 5030*l*. 14s. 3d. for the period. A balance of 597*l*. 11s. 2d. was carried to the credit of the company from the previous account; whilst 220*l*. 14s. 4d. now remains, exclusive of 212*l*. 10s. subsist, or cash advanced to the men on account. No call was made, although it was estimated that 2*l*. per 1-1000th share would be required for the next six months' workings, which would be decided on at the next quarterly meeting.

The Lewis Mining Company held their annual meeting also on Wednesday last. The financial statement shows a balance of 2391*l*. 2s. 7d. against the company; but the ore raised and at surface is estimated at 2577*l*. The agent's report of the mine is highly favourable; the ore discovered in the different levels, backs, and winze, is estimated at 8200*l*., which can be taken away at 8s. in 1*l*. It appears that 189 tons of tin has been returned during the past eighteen months, which, if sold at the present advanced price, would have made a difference of 1130*l*. to the company.

The annual meeting of the Tamar Silver-Lead Mining Company was held on Thursday last. The balance-sheet exhibited states the expenditure at 17,296*l*. 14s. 9d., and the returns on ores 17,216*l*. 5s.—consequently, a loss of 80*l*. 9s. 9d. on the 12 months' operations. The balance of 815*l*. 14s. 6d. is carried to the credit of the company, together with 103*l*. 10s., paid as subsist for September cost, and a reserved fund of 1723*l*. 13s. 3d. The agent's report of the mines is favourable; it represents the south mine as productive, and rich in going down, and has produced a profit of 1900*l*. The north mine at present is not so productive, although the lode holds out promise of ultimate success. The smelting-works, which also belong to the mining company, will evidently prove a source of great profit; during the past three months a net profit of 1300*l*. has been realised, and during the 12 months 144,085 ozs. of silver has been sold. The company may now be considered in a safe and profitable position.

The Gadair Mining Company (one of those emanating from the British Mining Offices) held a meeting on Thursday. The accounts submitted represented the liabilities of the company about 500*l*.; the calls made amount to 850*l*., and only 10*l*. had been received. Operations on the mine had ceased for some months, but arrangements are about being made for the effective working of the mine, under an efficient management.

A meeting of the Real Del Monte Mining Association was held on Monday, the 23rd inst., for the purpose of confirming the resolution adopted on the 25th Sept., whereby the company was agreed to be dissolved. But, in consequence of the non-arrival of the Mexican mail, due on the 21st., the meeting was adjourned to Monday, the 30th, thereby affording time for the arrival of the dispatches expected from the mines.

In foreign mines there has been several transactions in St, John del Rey, Barossa Range, Asturian, Australia, and United Mexican—the latter has been freely sought for at a high figure, in consequence of favourable advices from the mines.

We hear that letters have been received from the Australian Mines; and, on application for copies of the agent's reports of the mines, we were refused, stating that they were only for shareholders. We fear this refusal is rather a stretch of official power, which the company generally will not sanction, especially as we ever received the greatest urbanity from the late secretary, who readily furnished every information, using our columns as a medium for conveying the same to country shareholders.

The following arrivals of specie have taken place since our last:—The Peninsular and Oriental Steam Navigation Company's ship, *Montrose*, arrived at Southampton, on Tuesday, the 24th, having on freight 67 packages of specie—value, 35,000*l*. sterling. The Royal Mail steam-ship, *Trent*, arrived at Southampton, on Wednesday last, with the West India and Mexican mails, and freight in specie of $29,139, on account of Mexican dividends, and $1,243,205 on merchants' account, 28 ozs. of gold, and 32 ozs. of gold dust, 219*l*. 14s. 6d. British coin, 1318 ozs. of silver, and 10,025 fr.

HULL, THURSDAY.—Our market is still in a very languid state, but we notice rather more disposition on the part of the public to invest at the current low rates.

COAL MARKET, LONDON.

PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

MONDAY.—Bate's West Hartley 16—Dean's Primrose 14 3—Hasting's Hartley 16 6—Holywell Main 16 6—North Percy Hartley 16—Ord's Redheugh 14 6—Tanfield Moor 16 6—Townley 15 6—Walbottle Hartley 15—West Hartley 17—Wall's End Hotspur 18—Eden Main 20—Hetton 20 6—Morrison 19—Shotton 19—Seymour Tees 19—Howard's West Hartley Netherton 16 6—Nixon's Merthyr 21—Powell's Duffryn Steam 19.—Ships at market, 27; sold, 10.

WEDNESDAY.—Carr's Hartley 17—Holywell Main 16—Ord's Redheugh 14 6—Stewart's Hartley 15 6—Tanfield Moor 15 6—Walbottle Hartley 15—West Hartley 17—Wall's End Hetton 20 6—South Hartlepool 19 3—Morgan's Stone Coal 26—Nixon's Merthyr 21—Elgin 16 3.—Ships at market, 28.

FRIDAY.—Hartlepool West Hartley 16—Holywell Main 17—Ord's Redheugh 15—Tanfield Moor 16—West Hartley 17 6—Wall's End Hedley 18—Northumberland 18 6—Hetton 21—Seymour Tees 19—West Hartley Netherton 16 6—Morgan's Stone Coal 26—Nixon's Merthyr 21.—Ships at market, 12; sold, 8.

THAMES TUNNEL COMPANY

The number of passengers who passed through the Tunnel in the week ending Oct. 21, was 16,084; amount of money, £67 0s. 4d.

PRICES OF MINING SHARES.

BRITISH MINES.

Shares.	Company.	Paid.	Price.
1000	Abergwessin	7	—
512	Albert Consols	1	2¼
1024	Alfred Consols	4½	5
235	Andrew and Nangiles	28½	—
1000	Antimony and Silver-Lead Mining & Smelting	5	6½
1024	Ashburton United Mines	8½	10
1624	Balleswidden	9	18
128	Balnoon Consols	25	25
10000	Banwen Iron Co.	6	6½
1000	Barristown	4½	1
4000	Bedford	2½	2
1244	Birch Tor Tin Mine	9½	1½
8000	Blaenavon	50	17½
100	Botallack	175	60
120	Brewer	5	7
10000	British Iron, New, regis.	10	13
—	Ditto ditto, scrip	10	10
128	Budnick Consols	52½	35
128	Callestock	17	10
1000	Callington	19	15
1000	Camborne Consols	5	7
20000	Cameron's Steam Coal	6	1
256	Caradon Copper Mine	9½	2
256	Caradon Mines	22½	10
256	Caradon United	24	5
256	Caradon Wh. Hooper	21	8
1000	Carn Brea	15	95
3000	Carthew Consols	1½	5
2048	Cascade	1	—
112	Charlestown	220	60
512	Coatlithe Hill	½	1
500	Comblawn	5½	6
128	Comfort	45	37
256	Condurrow	20	40
2560	Cook's Kitchen	14	2
1000	Coombe Valley Quarry	3½	4½
6500	Cornish Mining Co.	2	2¾-¾
20000	Cornwall New Mining	1	1
1000	Copper Bottom	1½	6½
1024	Cosheen	4½	20
225	Craddock Moor	16½	5
128	Creeg Braws	120	100
500	Cubert Mine	12½	10
1000	Cwm Erfin	3½	1½
300	D. Prior & Buckfastleigh	14	26
7100	Derwent	8½	5
845	Devon & Courtenay Con.	7½	¾
1024	Devon Great Consols	1	212
1000	Dhurode	2	5
186	Dolcoath	30	15
2560	Drake Walls	4	4
10000	Durham County Coal	45	8
3000	Dyfngwm	10	12½
512	East Alvenney	5½	12½
112	East Caradon	47	47
2048	East Crowndale	5½	2½
512	East Combe Silver-Lead	6½	6½
128	East Pool	5	20
100	East Relistian	22	40
9000	East Tamar Consols	¼	¾
—	East Wheal Albert	1	3
94	East Wheal Crofty	125	250
1024	East Wheal Fortune	2	3
1024	East Wheal Friendship	3	3½
128	East Wheal Rose	50	750
—	East of Scotland Iron Co.	5	1½
123	East Wheal Seton	14	10
256	Exmoor Wh. Eliza	5	8-10
512	Fowey Consols	40	45
1024	Freidd Llwydd Mines	1½	3½
6400	Gadair	2	2
20000	Galvanised Iron Co.	10	1½
4000	Gen. Mining Co. for Irel.	1½	1½
2048	Goldscope Mine	2	2
256	Gonamena	34	5
128	Goonvrea	4	2
100	Great Consols	1000	400
1600	Great Michell Consols	1½	¾
256	Great Resugga Moor	11	6
512	Gt. Wh. Rough Tor Con.	18½	16
1200	Growa Slate Company	5	5
256	Gwinear Consols	7	3
6000	Heigaston Down Con.	¼	2½
256	Herodsfoot	18	25
10000	Hibernian	12½	1½
239	Hobb's Hill	6	1½
1000	Holmbush	19	1½
827	Kirkcudbrightshire	5½	2
2048	Lamherooe Wh. Maria	11	1
128	Lelant Consols	90	60
160	Levant	—	120
1000	Lewis	15	5½
1000	Llwyn Malees	7	7
3600	Llynvi Iron	50	50
256	Lostwithiel Consols	15	15
6000	Marke Valley	10	2
5000	Mendip Hills	2½	1
5000	Merionethshire Slate Co.	1½	2
128	Metha	34	120
20000	Mining Co. of Ireland	7	4½
256	New East Crowndale	3½	2½
128	North Fowey Consols	37	10
100	North Pool	45	400
140	North Roskear	5½	165
262	North Wh. Leisure	1½	2
15000	Northern Coal Co.	23	2
128	Par Consols	—	1009
8000	Pennant & Craigwen	2	—
100	Penrhiw	30	65
1024	Penzance Consols	16s 3d.	2
1280	Perran St. George Un.	13	20
128	Perran Wh. Virgin	9½	10
512	Plymouth Wh. Yeoland	6½	15
256	Polsaith Consols	4½	4½
2500	Rhoswiddol & Bacheldon	10	10
10000	Rhymney Iron	50	13
10000	Ditto New	7	6¾
1000	Rosewall Hill	1	5
256	Rosewarva Mines	—	12

BRITISH MINES—*continued.*

Shares.	Company.	Paid.	Price
128	South Caradon	10	350
1100	South Dolcoath	4	4
256	Sth. Friendsh. Wh. Ann	20	4
256	South Molton	5	8-10
256	South Tolgus	10	55
256	South Trelawny	20	8
128	South Wheal Basset	110	120
256	South Wh. Betsey	2½	12½
124	South Wh. Frances	160	215
1000	South Wh. Maria	2½	1½
10000	Southern & Western, Irish	2	4
280	Spearne Moor	30	40
256	St. Austell Consols	9	—
94	St. Ives Consols	—	320
128	St. Michael Penkivel	5	10½
998	St. Minver Consols	1	6
1000	Stray Park	43	17½
9600	Tamar Consols	3	5
1024	Tavy Consols	4	8
6000	Tincroft	7	3½
1000	Tin Vale	2½	3½
128	Tokenbury	152½	13
256	Tollpetherwin	3½	5
256	Tregordan	1	8½
256	Trehane	2½	26½
5000	Treleigh Consols	6	2
2000	Trenance	3	18
96	Tresavean	10	210
120	Trethellan	5	19
120	Treviskey and Barrier	130	85
288	Trevean	1½	5
100	United Mines	300	350
256	Wellington Mines	15	10
128	West Basset	45	7
256	West Caradon	20	70
128	West Cargoll	2	12
512	West Fowey Consols	40	15
256	West Providence	9	40
200	West Seton	40	200
—	West of Scotland Iron Co.	240	90
120	West Trethellan	5	30
256	West United Hills	—	4½
512	West Wheal Frances	1½	2
256	West Wh. Friendship	9	8
3725	West Wheal Jewel	11	1½
256	West Wheal Tolgus	21½	5
256	West Wheal Treasury	19	8
5200	Wicklow Copper	5	8½
184	Wheal Adams	51	10
1000	Wheal Agar	—	8
256	Wheal Albert	10	1
256	Wheal Allen	2	5
300	Wheal Anderton	23	15
128	Wheal Ann	—	50½
512	Wheal Anna Maria	6½	8
1024	Wheal Ash	4½	8
120	Wheal Bal	5½	20
2560	Wheal Barbara	1½	—
256	Wheal Blencowe	21	5
256	Wheal Bucketts	20	5
256	Wheal Calstock	5	10
136	Wheal Clifford	190	—
1024	Wheal Coad	—	12½
268	Wheal Courtenay	12½	15
256	Wheal Fortescue	6½	3
388	Wheal Franco	27	18
128	Wheal Harriet	45	—
256	Wheal Jane	21	15
1024	Wheal Lawrence	2½	6
112	Wheal Margaret	79	250
512	Wheal Mary Ann	5	14½
237	Wheal Mary Consols	42½	—
—	Wheal Penhale	—	12
210	Wheal Prospect	4	7
120	Wheal Reeth	41	150
128	Wheal Rose	60	5
99	Wheal Seton	214	650
194	Wheal Sisters	32½	12
512	Wheal Sophia	3½	5
128	Wheal Spearne	10	75
128	Wheal St. Ann	30	35
560	Wheal Trescoll	4	8½
250	Wheal Trelawny	7½	55
256	Wh. Tremaine (St. Ervan)	9½	2½
1024	Wheal Tremayne	35	1½
92	Wheal Tryphena	140	265
1000	Wheal Vincent	1½	5
256	Wheal Vlow (Perranz.)	¾	¾
184	Wheal Vyvyan	—	60
250	Wheal Williams	28¾	8
1024	Whiddon Mines	4½	4¾
1024	William-Mary North	2	—

FOREIGN MINES.

Shares.	Company.	Paid.	Price
5000	Alten Mining Company	14½	2
15000	Asturian Mining Co.	13	2½
20000	Australian	2½	5-5¾
10000	Anglo-Mexican Co.	100	¼
12374	Ditto Subscription	25	1½
6000	Barossa Range	½	1
3000	Bolanos	150	2¼-½
2000	Ditto Scrip	15	3
12000	Brazilian Imperial	23	4½
10000	Cobre Copper Co.	40	13
10000	Copiapo Mining Co	14	2-½-¾
10000	General Mining Ass'n.	20	10¾
5000	Kinzigthal Mining Ass.	2	3
20051	Mexican Company	59	—
2000	Mexican & South Amer.	8	½
5000	National Brazilian	30	3½-5½
104000	N. Brit. Australasian	1	¼
29320	Rl. del Monte, regis. / Ditto unregistered	28½	½
	Ditto Red Debentures	—	4
	Ditto Black ditto	—	1-1½
	Ditto Loan Notes	150	12
7000	Royal Santiago	10	4
11000	St. John del Rey	15	8-9½
43174	United Mexican	Av. 28½	3

** *We should feel greatly obliged by agents, or others interested, furnishing us with such corrections for our Share List as we may not have received through our usual channels of information—our object being, to present as accurate a list of prices as can be obtained—to procure which, we solicit the aid of correspondents in general.*

LATEST CURRENT PRICES OF METALS.

LONDON, OCTOBER 27, 1848.

	£	s.	£	s.	d.
IRON—Bar *a*..Wales ..*ton*	0	0—	5	10	0
,, ..London ..	0	0—	6	15	0
Nail rods ,,	0	0—	7	10	0
Hoop(Staf.) ,,	0	0—	9	0	0
Sheet ,, ,,	0	0—	9	10	0
Bars, Staffordshire	0	0—	6	10	0
Pigs, ditto	3	0.	3	15	0
Welsh cold-blast foundry pig	3	15—	4	5	0
Scotch pig *b*, Clyde	2	2—	2	3	0
Rails, average	5	10—	6	0	0
Chairs	0	0 -	4	0	0
Russian, CCND *c*	0	0—	17	0	0
,, PSI	0	0—	—		
,, Gourieff	0	0—	—		
,, Archangel	0	0—	13	0	0
Swedish Steel, fagt. *d*	0	0—	15	0	0
,, ,, kegs *e*	13	10—	14	0	0
COPPER—Tile *f*	0	0—	78	10	0
Tough cake	0	0—	79	10	0
Ordin. sheets, *lb.*	0	0—	0	0	9
COPPER—Old	0	0—	0	0	7½
YELLOW METAL SHEATHING	0	0—	0	0	7½
TIN—Com. blocks *g* ..*cwt.*	0	0—	3	17	0
,, bars	0	0—	3	18	6
Refined	0	0—	4	1	0
Straits *h*	3	12 6	3	14	0
Banca	0	0—	3	15	0
ditto for arrival	0	0—	—		
TIN-PLATES—Ch., IC *i*, *box*	1	9—	1	10	0
,, IX	0	0—	1	15	0
Coke, IC	1	6—	1	7	0
LEAD—Sheet *k* ..*ton*	17	0—	17	5	0
Pig, English	16	0—	16	5	0
,, Spanish, in bd.	15	0—	16	0	0
Red	0	0—	18	5	0
Dry White	0	0—	22	15	0
Shot (Patent)	0	0—	19	5	0
SPELTER—(Cake) *l* on spot	14	0—	14	5	0
For arrival	0	0—	—		
ZINC—(Sheet) *m* export.	0	0—	20	0	0
QUICKSILVER *n* ..*lb.*	0	0—	0	3	6

a Discount 2½ per cent. *b* Net cash. *c* Discount 2½ per cent. *d* Ditto *e* In kegs ½ and ¾-inch. *f* Discount 3 per cent. *g* Ditto 2½ per cent. *h* Net cash. in bond. *i* Discount 3 per cent. *k* Ditto 2½ per cent. *l* Net cash. *m* Discount 1½ per cent. *n* Discount 1½ per cent.

REMARKS.—The iron market has participated in the general depression of business, and we have to record a more than ordinary dullness during the past week. Scotch pig-iron is extremely flat. Sales have been made at 42s. for all No. 1, and 41s. 6d. for mixed Nos., cash, at which rates our Glasgow correspondent informs us there were still sellers. As the shipping season is now closed, a general opinion prevails that the present price cannot be maintained. In other metals no alteration.

GLASGOW, OCT. 25.—The low prices ruling has induced a little more inquiry for pig-iron than there was last week, and the market seems not quite so yielding, but there has been very little business transacted, except small parcels for consumers, at 41s. 6d. for No. 3; 42s. for mixed Nos.; and 42s. 6d. for No. 1, which we quote as the price to-day.

BOMBAY, SEPT. 14.—During the past fortnight our market for metals has been inactive. In copper nothing has been done, and our quotations have undergone no change. Swedish bar-iron continues scarce, and in good inquiry, while British bar remains low in price. In other metals we have no change to notice.

CALCUTTA.—Since our last we have continued to receive favourable intelligence respecting copper from all of the principal up-country markets, and sales have been extensive, at full and rising prices.—The demand for iron has been fair.—Latterly there has been a fair inquiry for spelter.—The price of lead is well supported.

EXPORTS OF METALS TO ALL INDIA FROM LONDON AND LIVERPOOL,

FOR THE FIRST NINE MONTHS OF 1847 AND 1848.

Metals.		1847.	1848.	*In. in 1848.*	*Dec. in 1848*
Spelter	*Tons*	2392	2579	187	—
Copper		2865	2584	—	281
Iron, British		9118	15501	6383	—
Ditto, foreign		761	203	—	558
Tin-plates	*Boxes*	6743	3181	—	3562
Lead	*Tons*	742	591	—	151
Steel		517	132	—	385
Quicksilver	*Bottles*	50	25	—	25

THE IRON TRADE.

The accompanying statement of the number of blast-furnaces in and out of work, in South Staffordshire, has appeared in connection with remarks upon the position of the iron trade. The total number of furnaces in blast, according to the figures given, should be 106, instead of 105; but, probably, there is an error of one furnace in excess in the enumeration:—

Name of Work and Firm.	*In Blast.*	*Out.*
Chillington—Chillington Iron Company	4	0
Stowheath—W. and J. S. Sparrow and Co.	3	0
Osier Bed—William Sparrow and Son	4	2
Priestfields—W. Ward	2	1
Parkfield—Parkfield Iron Company	3	1
Wolverhampton—Dixon and Hill	2	1
Millfields—William Riley	2	1
Coseley—George Jones	2	1
Bilston—W. Baldwin and Co.	1	1
Bilston Brook—John Parsons	1	2
Bradley or Hallfield—B. Gibbons, jun.	1	0
Wednesbury Oak—P. Williams	3	0
Willingsworth—R. Haynes and Sons	2	1
Gold's Hill—J. Bagnall and Sons	3	0
Capponfield—ditto	3	0
Ettingshall—T. Banks and Son	2	0
Horsley—John Hartland	2	0
Coneygrey—Lord Ward	2	1
Wednesbury—Lloyds and Co.	2	0
Bentley —Earl of Lichfield	0	4
Tipton—E. Cresswell and Sons	2	0
Union —P. Williams and Co.	3	0
Bilston—Thomas W. Vernon	1	0
Priorsfield—H. B. Whitehouse	2	1
Coseley or Deepfield —Pemberton and Co.	2	0
Pelshall—W. F. Fryer	2	0
Birchills—P. Williams and Co.	1	0
Dudley Port—Hopkins and Sons	1	0
Oldbury—J. Dawes and Sons	2	0
Dudley Port—Thomas Morris	1	0
Waterloo or Broadwater—Grocott and Colburn	2	0
Crookhay—Thomas Davies and Sons	3	0
Bilston—George Jones	2	1
Darlaston—E. Addenbrooke and Co.	2	0
Darlaston Green—Bills and Mills	1	0
Moseley Hole—Chillington Company	3	0
New Brick Fields—George Jones	2	0
DUDLEY DISTRICT.		
Netherton—W. A. Grazebrook	1	0
Dudley Wood— / Corngreaves— / Netheston — British Iron Company	5	3
Windmill End—Sir H. St. Paul	0	2
Withymore—Best and Barnes	1	1
Parkhead—Evers and Martin	1	1
New Corbyn's Hall—B. Gibbons	3	0
Old Level—William Izon	1	1
Brettel Lane—W. J. Wheeley	0	2
The Lays—W. and J. Firmstone	3	0
Corbyn's Hall—Galvanized Iron Company	2	1
Shutt End—James Foster and Co.	4	0
Oak Farm Works—Oak Farm Iron Company	0	2
Russell's Hall —Blackwell and Co.	2	0
Ketleys, Jones, and Oakes	2	0
Buffery—Josh. Haden	1	0
Woodside—Bramah and Cochrane	2	0
The Level—Lord Ward	2	1
Total in South Staffordshire	105	32

—From the *Wolverhampton Chronicle.*

LEAD ORES

Sold at Holywell, on the 26th October.

Mines.	*Tons.*	*Price.*	*Purchasers.*
Pant-y-mwyn	60	£9 3 0	Walker, Parker, & Co.
Pen-yr-henblas	50	9 8 0	Newton, Keates, & Co.
ditto	50	9 10 0	Walker, Parker, & Co.
Westminster	43	8 11 0	ditto
ditto	7	8 14 0	Newton, Keates, & Co.
Jamaica	40	9 2 6	ditto
ditto	10	10 13 0	J. P. Eyton.
Belgrave	30	9 3 6	Walker, Parker, & Co.
Pwllcial	2½	8 0 0	ditto
Foxdale	60	9 16 6	ditto
Machynlleth	39	9 12 0	ditto
ditto	16	8 13 0	ditto
Shallee	35	13 1 0	Newton, Keates, & Co.
ditto	4	8 1 0	Walker, Parker, & Co.
Total tons	466½		

Sold at Liskeard, on the 21st of October.

Wheal Trelawny	97	£15 17 0	Sims, Willyams, & Co.

BLACK TIN.

Sold on the 21st of October.

Mine.	*Tons cwts. qr. lbs.*	*Amount.*
Wheal Tremayne	5 2 1 26	£220 1 0

COPPER ORES.

Sampled Oct. 11, and Sold at Farquharson's Hotel, Truro, Oct. 26, 1848.

Mines.	*Tons.*	*Price*	*Mines.*	*Tons.*	*Price.*
United Mines	124	£3 7 6	Wh. Comfort	44	£1 19 6
ditto	110	4 15 6	ditto	40	1 18 0
ditto	107	3 4 6	ditto	4	3 0 6
ditto	98	3 5 0	South Caradon	78	5 5 0
ditto	97	4 11 6	ditto	66	7 5 6
ditto	92	2 12 0	ditto	60	7 5 6
ditto	80	2 10 6	ditto	20	4 6 0
ditto	76	2 11 6	Tresavean	67	4 18 6
ditto	75	4 18 0	ditto	64	5 12 0
ditto	61	5 15 6	ditto	51	2 7 0
ditto	50	2 5 0	ditto	28	3 3 0
ditto	48	3 0 6	West Wh. Jewel	45	3 18 0
ditto	35	3 9 0	ditto	25	2 0 6
Par Consols	94	6 15 6	Wh. Brewer	25	1 10 0
ditto	86	4 10 6	West Trethellan	24	2 13 6
ditto	69	5 10 0	Treffry's Regulus and Copper	21	6 3 6
ditto	41	5 8 6	East Downs	15	3 18 6
Wh. Comfort	78	3 4 6	North Downs	8	4 1 6
ditto	59	1 12 6			

TOTAL PRODUCE.

United Mines	1053	£3786 4 6	Wh. Brewer	25	£37 10 0
Par Consols	290	1627 18 6	West Trethellan	24	64 4 0
Wh. Comfort	225	522 8 6	Treffry's Reg. &c.	21	129 13 6
South Caradon	224	1412 3 0	East Downs	15	58 17 6
Tresavean	210	896 8 6	North Downs	8	32 12 0
West Wh. Jewel	70	226 2 6			

Average Standard .... £95 1 0 | Average Produce 7½

Average Price per ton £4 1 0

Quantity of Ore .... 2165 tons. | Quantity of Fine Copper, 155 tons 2 cwts.

Amount of Money £8794 2 6

LAST SALE.—Average Standard .... £84 13 0.—Average Produce 10½

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal	212	£870 8 2
Vivian and Sons	346	1596 14 2
Freeman and Co.	109	327 14 10
P. Grenfell and Sons	426	1701 5 6
Sims, Willyams, and Co.	613	2133 9 8
Williams, Foster, and Co.	296	1582 14 6
Schneider and Co.	163	581 15 8
Total tons	2165	£8794 2 6

Copper ores for sale on Thursday next, at Andrew's Hotel, Redruth.—Mines and Parcels.—North Roskear 1000—Consolidated Mines 593—North Pool 537—Wheal Seton 287—Tincroft 260—Fowey Consols 255—Creeg Braws 200—South Roskear 185—South Wheal Frances 106—South Wheal Basset 95—Wheal Bucketts 61—Wheal Vyvyan 27—Wheal Harriet 30.—Total quantity of ore to be sold, 3626 tons.

Copper ores for sale on Thursday week, at Andrew's Hotel, Redruth.—Mines and Parcels.—Carn Brea 815—Par Consols 342—Levant 206—West Wheal Treasury 163—Wheal Agar 107—Alfred Consols 88—West Fowey Consols 70—Wheal Tremayne 69—Wheal Prosper 28—Wheal Virgin 18—Wheal Jane 8—Trenwoth Mine 8—Gwinear Consols 6.—Total quantity of ore to be sold, 1928 tons.

COPPER ORES

At SWANSEA, for sale Nov. 2.—Cobre 119, ditto 115, ditto 110, ditto 107, ditto 105, ditto 108, ditto 101, ditto 90, ditto 79, ditto 60.—Berehaven 121, ditto 109, ditto 94, ditto 86.—Chili 56, ditto 55, ditto 54, ditto 53, ditto 61, ditto 60.—Kapunda 65, ditto 60.—Knockmahon 93.—Laxey 64.—Burra Burra 57.—Lackamore 24.—Aberdovey 22.—Cronebane 2.—Tigrony 2.—Total quantity of ore to be sold, 2129 tons.

NOTICES TO CORRESPONDENTS.

*** We should feel obliged to all pursers captains, or adventurers, to forward particulars of meetings, &c., of the mines with which they may be connected, on the earliest opportunity, that they may be published in the Journal with as little delay as possible.

The length of our mine meetings compels us to omit some Literary Notices, letters, &c.

"A Constant Reader" (Liverpool) will find a report of the meeting of the Cascade Mining Company in another column of this day's Journal.

WHEAL WALTER.—*Erratum*.—In the report of the meeting, in last Journal, the balance should have been as due *to* the pursery and not *from* him, as stated.

We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses; not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, OCTOBER 28, 1848.

THE MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.

We recur to the affairs of the NORTH BRITISH AUSTRALASIAN COMPANY. We concluded our review last week after the general meeting of the 6th of Sept., 1842, at which the loan of 20,000*l.* was sanctioned. It appears that the first manager, Mr. BEATTIE, in his report of the 11th of March, 1840, had stated—"It requires little observation to be convinced that the means of using money profitably here are great. I bought, a few days ago, the right to a sheep station, *said* to be about 70,000 acres, with all improvements, huts, drays, &c., 14 working bullocks, 1000 sheep, and 500 hurdles, and I got eight or nine men at their present engagements. It is thought a capital bargain—price, 1100*l.*" Now, we believe, that it afterwards appeared that this was not the price of the property, nor nearly the price. About the time of the receipt of the report above alluded to, Mr. TAYLOR was sent out as sub or co-manager, and Mr. BEATTIE was subsequently discharged, at the recommendation of the committee of inquiry, in 1844. Indeed, the latter gentleman appears to have acted either in opposition to, or independent of, the directors at home; and, in the exercise of his own authority, to have entered into many extraordinary and ruinous transactions. We scarcely think, however, that the directors are without blame, in allowing him to have pursued that course so long as they did.

The report read at the general meeting, held the 8th Dec., 1843, informs the shareholders that Mr. TAYLOR had reached the colony, and, with Mr. BEATTIE, was investigating the company's affairs. On the 10th of Feb., 1844, the directors placed in the hands of the shareholders a further report, containing extracts of both those gentlemen's letters. The affairs are there also represented to be in a very unsatisfactory and unpromising condition. Mr. TAYLOR'S estimate of the property was far below that of the former manager. At the fourth annual general meeting, more extracts from the letters of the colonial agents appear. The partners were there told that, according to the *best* estimate which Mr. TAYLOR could make of the assets and liabilities of the company, the whole capital of 53,000*l.* might be considered as lost. The 20,000*l.* sent out to clear off incumbrances, had gone but a small way in effecting that object. At this time, two managers and an accountant, costing at least 1500*l.* a year, besides office rent and charges, were employed by the directors—the whole cash in hand being only 10*l.* 13s. 3d.; and these officials, in the then state of the colony, had only this sum to manage! A committee of inquiry was then appointed; after a patient examination of the books, they recommended a call of 8s. per share to pay off incumbrances; they also reported, that the ruin of the company was, in a great measure, traceable to the having contracted debts to a large amount, in violation of the second clause of the Deed of Copartnery. Shortly after this, the news arrived, that the island of Kaw-aw was found to contain immense quantities of copper ore; and shares, which had, in at least one instance, been got rid of by the holders giving 5s. a share to the acceptor, rose to even 3*l.*: it was resolved to double the capital.

Mr. TAYLOR was now sole manager. Matters were so improved, that he was enabled to complete arrangements, for stock and agricultural operations, to clear off all incumbrances, and he had a considerable sum on hand to meet his expenditure on mining. His letters stated, that the commission business was paying handsomely; wool was rapidly increasing in quantity; the price in the London market was extremely high, and fair returns were derived from boiling down fat and surplus stock; but affairs did not remain long in this prosperous condition, owing to the grossest mismanagement of the mining and other property. A person was engaged to work the mine by contract, after getting rid of an individual named ABERDEIN, who had, by some yet unexplained process, become so firmly fixed on this part of the property, that Mr. TAYLOR claims great credit to himself for getting quit of him by a considerable pecuniary payment! This contractor was allowed to carry on mining operations, until the directors could send out a properly qualified superintendent from England; and his operations were, on the whole, satisfactory. He found no difficulty in getting ore which could be sent home; and, under his management, the operations were profitable. The directors entered into arrangements with a mining captain in England to superintend the whole mining operations; and, in doing this, made a mistake which has seriously affected the interests of the company, and will, we fear, continue to prejudice them. "My first question put to them at the time (continues the writer of the letter, alluded to last week) was—'Had he any acquaintance with chemistry or geology?' And I was surprised and vexed to learn, that they had sent him for eight or ten days to study these sciences! The result was just what might have been expected. There are good reasons for believing that he is master of the mechanical part of his profession—that the mining operations are properly and regularly conducted; but that he has shown himself incapable of judging of the *quality* of the ore, either by inspection or analysis. It is generally reported, that he met a cargo of ore at Sydney on his way out, and ordered it to be put on shore as altogether worthless; but that the manager afterwards sent part of it home as ballast, which proved valuable, and brought a fair price." Indeed, Mr. TAYLOR would appear to have had no confidence in the miner's knowledge of ores, or in the analyses which he was making—he obviously only speaks of his science to sneer at it.

It will be recollected, that it was reported that the ore heated in the ships, but notwithstanding the immense salaries which were paying to superintendents and managers of one kind or another, there was no person, it appears, capable of acting or advising. Everything, consequently, went to confusion, and a complete stop was put to profitable operations. Then with regard to the smelting part of the business, 18 months, at least, were lost, and heavy expenses incurred in sending out parties from this country—even the mechanics to erect the furnaces. "When these men did reach the colony, instead of commencing their operations at Kaw-aw—where any reasonable man, unbiassed by other considerations, would have placed them—the furnaces were erected at Sydney, *two thousand miles by sea from the mine*, to roast ore which could not be transported by sea, without burning the vessels! Fortunately for us, other parties put a stop to this ridiculous proceeding. The climate of Sydney is naturally sultry enough, and the inhabitants and authorities, however anxious to retain our manager, were not at all partial to his furnaces impregnating their atmosphere with sulphur, and they, therefore, interdicted the whole affair as a nuisance, and we have only lost the time and money expended on the erection. This is, as I said, fortunate; if the ore can be sent to Sydney, without heating, it can be sent to Swansea; if not, Kaw-aw is certainly the proper place for the operation." This mining undertaking has, we believe, been the most miserably managed that any unfortunate partners ever were concerned in. The island is said to contain a mass of ore, easily and cheaply raised, capable of shortly making up their losses, and repaying their expenditure; instead of which it has paid nothing, has absorbed their whole surplus capital, the profits from their general business, and involved them in debts, which will in a very short time, if they go on as they are doing, exceed the value of the whole property, and involve them again in bankruptcy.

At the meeting on the 10th of July last, the mines were valued by the directors at 18,000*l.*, being exactly the sum they have cost *after deducting* the proceeds of ore. This latter sum must be at least 7000*l.*—making the total and real cost of the mineral property, 25,000*l.* Of this, 2500*l.* was paid for the share of the Bon Accord Mine (from which no ore has yet been received), leaving 22,500*l.* as the real cost of mining operations at Kaw-aw, and 15,500*l.* as the *loss* upon the same! And yet a property, which has proved a loss of 15,500*l.*, is set down as worth that amount! Certainly this is an extraordinary way of making up accounts; and, by the same process, we suppose that in another year they will be valued at 30,000*l.*, as, if matters proceed as they are doing, there will be another 15,000*l.* thrown away on this part of the property.

It appears that the capital stock of the company has not been issued as sanctioned by the proprietors, but may be stated as follows—

Original capital	£50,000
Issued in terms of resolution, 11th August, 1841, only	3,000
Call of 8s., in September, 1844	21,200
Ditto of 12s., in spring of 1845	31,800
Capital should be	£106,000

But, by some means or another, never clearly explained, the real capital paid up stands at only 104,000*l.*

The total valuation of the property, including the 18,000*l.* for the mines, was estimated on 10th July at		£56,000
Loan since contracted, to pay liabilities due	£17,000	
Other liabilities, estimated say at	10,000	
To be paid before grant of Kaw-aw can be confirmed, at least	3,800	30,800
Apparent balance in favour of the company		£25,200

Now, it is doubtful whether the company will ultimately be owners of the island alluded to, without paying a much larger sum, as Earl GREY directed the governor last year to annul the grant as illegal, and, of course, if it really contains the rich minerals it is said to do, the Crown will demand a proportionate price. Besides this, we believe the company is sinking at least 1000*l. monthly*—so that, under the present management and prospects, we should not be disposed to recommend the shares at even the small price they are selling for. Under the circumstances, we should consider them really valueless.

Verily, there is something rotten in the state of the North British Australasian Company; and, if we have taken too unfavourable a view of their affairs, the directors are to blame for it. Although the manager is bound by the contract to send home monthly copies of the books kept in the colony, no accounts had been received for four months, until about a week ago; and, for the last two or three years, the circulation of printed reports among the shareholders has been *discontinued*, and also the practice agreed to be observed on the 8th December, 1843, that "*the report of the directors should lie in the cashier's office for fourteen days previous to the general meeting*, for the inspection of the shareholders," has been long stopped, on the extraordinary plea, that "they would be apt to find their way into the colony, and embarrass the manager in his operations!" We remind the shareholders of the suggestion we made last week; and we recommend them to form a committee without delay to carry it into effect. The directors may be very respectable; but they are evidently not qualified for their position in this company.

Death of Joseph Hedley, Esq., C.E.

We regret to have to record the demise of this gentleman, who has been so intimately connected with the introduction of gas, and economising its cost of manufacture. Several able papers from that gentleman being published from time to time in our columns, and one of which appeared so late as in the last Journal. We feel that his loss will be regretted by the numerous parties in the scientific world with whom he has been associated, as also those to whom he was more generally known. The lamented gentleman died on the 24th inst., at his residence Paddington-green, in his 59th year.

THE LATE GEORGE STEPHENSON, C.E.—At the quarterly meeting of the Society of Mechanical Engineers, held in Birmingham, on Wednesday last, the following resolution was unanimously adopted:—"That the members of this institution desire to express their deep regret at the decease of their late president, George Stephenson, Esq., whose early support of this institution has greatly contributed to bring it to its present state of success." A long memoir of Mr. Stephenson, contributed by Mr. Scott Russell, was read, and received with general approbation. Mr. Robert Stephenson, M.P., was elected president, in the room of his deceased father; and Mr. Marshall, connected with the locomotive department of the Norfolk Railway, was appointed secretary. The institution progresses satisfactorily.

MIDLAND RAILWAY.—It appears, from an official statement recently circulated amongst the shareholders, that the total amount of productive capital of this company, and of all other companies leased or purchased by them, on which dividend and interest was paid out of revenue on the 30th of June last, was 13,682,152*l.* These figures include the nominal additions to capital, arising from the issue of shares at a discount, as well as the cost of the Leeds and Bradford line, which was not included in the published accounts. The amount of unproductive capital on which interest was charged to capital account to the 30th of June last, exclusive of contributions to other companies, was 1,309,776*l.* The following are the shares held by the Midland Company in other lines—viz.: 7500 shares, of 8*l.* 2s. each, in the Manchester, Sheffield, and Lincolnshire, Railway, upon which 4*l.* 2s. per share has been paid; 14,250 shares, of 16*l.* each, in the Manchester, Buxton, Matlock, and Midlands Junction Railway, upon which 4*l.* per share has been paid; 6000 shares, of 12*l.* each, in the South Staffordshire Railway, upon which 6*l.* 10s per share has been paid; 1000 shares of 50*l.* each, and 1000 of 25*l.* each, in the South Devon Railway, paid up; the total amount of shares held in these companies being 435,750*l.*, and the amount of calls on those shares still to be paid, 234,000*l.* It points out some gross mis-statements respecting an alleged discrepancy of 1,500,000*l.* between the productive capital of the company, and the amount on which dividend and interest was paid out of revenue. The amount of loans on which interest was charged to revenue was last half-year 3,406,143*l.*, and not, as stated, 2,944,444*l.*, making an error of 461,699*l.*; the amount of share capital on which dividend was charged to revenue was understated by 722,186*l.*; and the amount of contributions to other companies altogether omitted 166,825*l.*—total, 1,350,710*l.* It concludes by stating that these three mistakes are sufficient, without specifying smaller misstatements, to clear up the supposed mystery in the accounts. The number of 40*l.* shares not issued by the company is stated to be 9007.

LONDON AND NORTH-WESTERN RAILWAY.—In the *Times* of this morning is published the promised account of the present and prospective financial position of this company. It has been arranged with clearness, and presents all the materials that could be desired, as a basis for forming an estimate of the real prospects of the concern. What that estimate may be on the part of each individual will, however, depend, in a great measure, on the view taken as to the amount of traffic likely to be developed on the branch lines in course of formation, and on the subsidiary ones in which the company are interested by subscription or otherwise; and as these are points upon which local knowledge and experience of analogous cases must be brought to bear, it will be some time before a definite judgment can be formed. Where there is so much room for uncertainty, of course no two opinions will be found exactly to agree; but the leisure of numerous capitalists will now be devoted to careful calculations on the subject, and the state of the market, during the next month or two, will furnish the only true index as to the general conclusions which have been arrived at. It will be observed from the account, that the total length of line in which the company are interested, directly and indirectly, is 1141 miles; that the total amount already expended is 22,835,120*l.*, and that 3,136,626*l.* is the expenditure yet to take place. In addition to this, the company have obtained powers for the construction of 14 lines, at an estimated aggregate cost of 3,876,963*l.*, but which have not been commenced, and which, it appears, will only be carried out upon the express sanction of the shareholders.—*Times* City Article.

A NEW METHOD OF EXTRACTING PURE GOLD FROM ALLOYS AND FROM ORES.

The following method of obtaining pure metallic gold in the form of a spongy mass, has been practised by me for several years, and no account of the process has, to my knowledge, heretofore been published. It is very useful to the chemist and to the manufacturer, and is more economical than any other method that I am acquainted with:—

After separating the gold from silver, by means of a mixture of nitric and hydrochloric acids, as is usually done, the solution containing gold and copper is to be evaporated to small bulk, and the excess of nitric acid is thus driven off. A little oxalic acid is added, and then a solution of carbonate of potash, sufficient to take up nearly all the gold in the state of aurite of potash is gradually added. A large quantity of crystallised oxalic acid is now added, so as to be in great excess, and the whole is to be quickly boiled. All the gold is immediately precipitated in the form of a beautiful yellow sponge, which is absolutely pure metallic gold. All the copper is taken up by the excess of oxalic acid, and may be washed out. Boil the sponge in pure water so long as any trace of acidity remains, and the gold is then to be removed from the capsule, and dried on filtering-paper. It may be formed into rolls, bars, or thin sheets, by pressing it moderately in paper. I have made several useful applications of the gold sponge thus prepared, and had a tooth plugged with it in October, 1846, to which purpose it is well adapted. By moderate pressure the spongy gold becomes a solid mass, and burnishes quite brilliantly.

The jeweller or goldsmith will find spongy gold to be quite convenient when he requires it for a solder, and it is a convenient form of the metal for making an amalgam for fine gilding. I have used it for some years in soldering platina, and prefer it to the filings or gold foil for that purpose. This method of separating fine gold from coarse is very simple, and cheaper than the usual processes. It is applicable in the separation of gold from ores that may be treated by acids, and is vastly preferable to the method commonly used by chemists and assayers. When making oxide of gold for dentist's use, the chemist will find that oxalic acid, added to this potassic solution, will at once recover all the gold that is dissolved in an excess of the alkaline solution.* Many other applications of this very simple method will occur to chemists and artisans.—C. T. JACKSON: *Silliman's Journal.*

* Much gold is lost by the usual method of preparing the oxide.

THE COST-BOOK SYSTEM IN GERMANY.

All mines in Germany are worked on what in England is called the Cost-book System; and this is not mere matter of choice, but is prescribed by the mining trade of Prussia. The registries, which are as exact for mining property as for land, recognise no firm. All must be entered to specific names, and all bills must be liquidated once a month. The purser, like the captain, is sworn to the state as well as to the proprietors, and is not removable, except on grounds in which the mining board concurs. Proprietors are bound to keep a mine at work on penalty of losing their right to it; but the extent of the workings is left to themselves, and one or two men preserve their claim as well as one hundred. We are enabled to give the cost of the working of the Eisenzeche Mine, from the accounts passed by the mining officer, and they will serve as a fair specimen of the charges attending working mines in the Siegen district. During the year 1846, when from 30 to 40 miners, and as many pickers, sorters, and overground hands were employed, the total cost of working out and making available 100 fms. on two lodes, with 40 fms. of cross-cutting, was—Miners, $3308; sorters, &c., $1061; cost of a winze, $647=5016 (or 758*l.*)

The returns were in iron, cobalt, and copper ore, and were stated at

500 tons, or 250 wagons of iron, at $5	$1250
10,000 cwts. of cobalt ore and slate, averaging ½ per cent., at $100	5000= $6250

As it was the first year of working, the cost of buildings which are erected by the miners, of tools, &c., which is included in the above estimate, has to be deducted. The profit is here clearly on the cobalt, to which the workings are proportioned, the washing-works not having in that year sufficed to work up more. But it is evident that there is scope enough for speculation in these parts, when the means of communication allow the ore to be taken off to distant markets.—*Banfield's Industry of the Rhine.*

COAL AND COKE DUES.—Returns moved for by Mr. William Hutt, M.P., show that the gross total amount of all local and municipal dues collected on the importation of coal or coke into the several ports of the United Kingdom, amounted, in the year 1847, to 250,154*l.*, against 232,513*l.* in the year 1846. The gross total amount of local, municipal, or imperial dues collected on the exportation of coal and coke from the several ports of the United Kingdom, amounted, in the year 1847, to 85,554*l.*, and in 1846 to 83,515*l.* The total amount of dues collected on coals and coke brought by railway to and from the ports of the United Kingdom, amounted, in 1847, to 1146*l.*, against 65*l.* in 1846.

A two days' sale of the blast furnaces, engines, erections, and machinery upon the premises known as the Buffery Furnaces, near Dudley, took place last week. The prices realised were rather high, particularly for the old metal, which sold better than, under the present circumstances, might have been expected. The working of these furnaces had been for some years abandoned, the principal supply of mine upon the estate being worked out, and the distance from the canal being a serious obstacle to providing material by water carriage. It appears probable that they will be now entirely removed; but we are glad to learn that two other blast furnaces in the same neighbourhood, belonging to Sir Horace St. Paul, which have long been unemployed, are about to be again set to work by a gentleman near Dudley, and will thus assist in finding employment for many of the surrounding population.—*Birmingham Gaz*

STAVELEY IRON-WORKS.—One of the furnaces lately blown out to undergo repairs, was recommenced on Wednesday, the 27th ult., and in the course of the week, ending Wednesday, the 4th inst., yielded 105 tons 10 cwts. of castings, under the skilful management of Mr. Richard Heywood, all of the most satisfactory kind—all being No. 1 iron, excepting the first casting. This we believe to be a very unusual produce made from one furnace newly blown in after repairs.—*Derbyshire Reporter.*

HART'S HILL FORGE.—These works, at which it will be recollected 10 unfortunate men were killed, and many others injured, by an explosion of a boiler, some few months back, recommenced work on Wednesday week.

THE USE OF TOBACCO IN COAL MINES.—At the quarter sessions, Durham, this week, John Newton was charged with having unlawfully set fire to a quantity of tobacco [lighted his pipe] in a coal-pit at Monkwearmouth, thereby endangering the lives of her Majesty's subjects in the pit. Mr. Otter appeared as counsel for the prosecution, and Mr Granger for the defence. This was the first indictment for the offence charged, and the prisoner pleaded guilty, on an understanding come to between the counsel and the bench that his punishment should be little more than nominal. The chairman commented on the rashness and culpability of the prisoner in exposing, not only his own life, but the lives of all the workmen in the mine, to danger, and said that in the next case of the kind the Court would feel called upon to deal severely with the offender. On the present occasion the penalty would be limited to one week's solitary confinement.—*Gateshead Observer.*

THE NEW GREAT CLOCK.—The construction of the great clock for the Victoria Tower, in the New Palace of Westminster, has been entrusted to Mr. Dent, the celebrated chronometer maker, who has undertaken to complete, for 1600*l.*, "as good a clock as in the present state of the art can be obtained, which is to strike the hours on a bell of from 8 to 10 tons, to chime the quarters upon eight bells, and to show the time upon four dials, about 30 feet in diameter."

SHIPS WITH DOUBLE KEELS.—At a meeting of the Royal Dee Yacht Club, on Tuesday, Mr. Scott Walker exhibited a number of very interesting models of vessels, constructed on a new principle, with a double keel. The chief objects aimed at are a very shallow draught of water, combined with great safety and speed, and a peculiar adaptation for the use of the screw as a propelling power—or, we should say screws, as the model, built to represent a steam-vessel, carries a screw at each keel, which, revolving in opposite directions, though worked by the same engine, produces a steadiness and equality to the motion of the vessel hitherto unattained. One of these models represented a vessel of 200 tons, and Mr. Walker assured the party assembled, that, on the nicest calculation, and allowing for incidental circumstances, a vessel built on the lines of that model would not, with its burthen, draw more than 3 feet of water.—*Chester Courant.*

EXTENSION OF THE GREAT WESTERN FROM READING TO BASINGSTOKE.—This extension of the Great Western from Reading, 35 miles up the main line to Basingstoke, on the London and South-Western, has been inspected by the railway commissioners, and will be opened on Tuesday next. It forms the union of two lines, by a cross-country route of 15 miles, and the arrangements at the Basingstoke station will be such that, notwithstanding what is termed "break off gauge," there will be a convenient interchange of passengers.

SOUTH DEVON RAILWAY.—The directors have passed a resolution, reducing the salaries of all the *employés* on their line. The porters and policemen will have 14s. instead of 15s. weekly, and those of a higher grade will be reduced about 20 per cent.; besides which, a reduction in the number of porters, policemen, and clerks is also contemplated.—*Devonshire Chronicle.*

ABERDEEN RAILWAY.—A meeting of the contractors was held on Thursday, at Stonehaven, convened in consequence of certain orders having been given to them, by the directors, to suspend their works; and in consequence, also, of certain misunderstandings in regard to the company's engineers and the referee for the contractors. The meeting was attended by almost all the contractors. The chair was filled by Mr. Forbes. The meeting were unanimous in their resolution to disregard the company's order to suspend the works, and resolved to apply to the court for authority to finish their respective contracts, under the inspection of the original referee, Mr. Gibb.—*Scotsman.*

MAIDEN NEWTON.—The works on the Wilts, Somerset, and Weymouth Railway are entirely suspended in this neighbourhood, and are not likely to be resumed before the next year.—*Sherborne Journal.*

Proceedings of Public Companies.

MEETINGS DURING THE ENSUING WEEK.

MONDAY.....Real del Monte Mining Company—offices, at One.
Cascade Mining Company—Queen's Arms Tavern, Cheapside, Twelve.
TUESDAY.....London Corn Exchange Company—offices, at One.
WEDNESDAY...Wheal Walter Mining Company—offices, at Twelve.
Etonian and General Life Assurance Company—offices, at Two.
THURSDAY....Westminster Fire Insurance Company—offices, at Twelve.
Vauxhall Bridge Company—George and Vulture Tavern, at One.
Agriculturalist Cattle Insurance Company—offices, at Twelve.
FRIDAY .....London Gas-Light and Coke Company—offices, at Eleven.

CALLINGTON MINES COMPANY.

A quarterly meeting of adventurers was held at the offices, Finsbury-square, on Wednesday, the 25th inst.

RICHARD HODGSON, Esq., in the chair.

The advertisement convening the meeting having been read, the CHAIRMAN at once proceeded to lay before the proprietors the report of the directors, as also those of Capt. Phillips, the resident agent, and P. N. Johnson, Esq., with the accounts—at the same time affording in addition thereto such further information which he possessed in his capacity as chairman of the board of directors, tending to exemplify more in detail the several points treated on in the reports. The following is the report presented by the directors, with an abstract of the accounts submitted, as also those presented at the meeting:—

DIRECTORS' REPORT.

The position of this company will be most accurately ascertained and understood from the accounts presented, and the reports furnished by Mr. Johnson and the local agents. Upon consideration of the statement of accounts, it will be seen that the depreciating influences, which were explained at the last meeting, have existed through the period which has since transpired, and that—although the quantity of copper ore raised from the Kelly Bray lodes has increased, the low prices obtained have diminished the amount of returns.

For the three months ending March, the quantity of copper raised was
234 tons 13 cwts., which produced £1398 9 9
For the three months ending June, the quantity raised was 256 tons 2 cwts.
3 qrs., which produced 1092 14 9

Thus exhibiting the produce increased in quantity, but diminished in price.

The prices realised for the silver-lead ores have also decreased considerably, and these circumstances have materially affected the interests of the company. The Kelly Bray engine-shaft is now 45 fms. deep, the lode being 3 ft. wide, and presenting promising indications, containing ores of good quality. In the 70 fm. level an improvement is expected, when the level is driven far enough east to take the same run of ground in which the engine-shaft is now being sunk at Kelly Bray; and here it will be observed that the lode in the winze to communicate the 70 and 90 fm. levels, now presents the same appearance as that in the 70, previous to cutting the last bunch of ores. The lead lode is yielding some rich work in the 100 fm. level north, and rich bunches are expected in taking away the backs in the 112 fm. level north; and here your attention should be directed to the fact, that 150 fms. of ore ground have gone down in the bottom of the 100 fm. level, which will be found available in the 112 fm. level, when that level is driven a sufficient distance; in the same level south, there are indications of material improvements. The progress, indications, and improvements, since the last meeting, are specially particularized in the reports to be submitted. All departments of the mine are progressing with the utmost care and activity, every effort being made to develope, and render profitable, the company's property.

Statement of Accounts for Three Months, ending June:—

EXPENDITURE.

Amount of April cost	£2055 16 7		
Ditto May ditto	1722 8 9		
Ditto June ditto	1961 12 0	—5729 17	4
Interest and discount		34 13	6
Directors' attendances	£62 10 0		
London management	50 0 0	— 112 10	0
		£5877 0	10
Balance		220 14	4
Total		£6097 15	2

RECEIPTS.

Silver-lead ores—April returns	£ 995 8 5		
Ditto May ditto	1425 16 7		
Ditto June ditto	1516 15 1	—3938 0	1
Copper ore—April returns	£ 504 6 10		
Ditto May ditto	340 17 5		
Ditto June ditto	247 9 11	—1092 14	2
Kelly Bray—April cost	£ 514 9 1		
Ditto May ditto	465 10 3		
Ditto June ditto	539 19 4		
	£1519 18 8		
Less copper ore sold	1092 14 2	— 427 4	6
Old materials		42 5	3
		£5500 4	0
Balance from last account		597 11	2
Total		£6097 15	2

Balance.....£220 14s. 4d.—Subsist.....£212 10. 0d.

The following copy of the accounts rendered of expenditure and returns at Kelly Bray were submitted:—

1847—March	£401 13 10		1847—Returns to Sept.	£387 16	1
June	474 0 2		Ditto Dec.	556 3	4
September	669 9 6		1848— Ditto March	1398 9	9
December	1200 14 4		Ditto June	1092 14	2
1848—March	2636 13 2			£3735 3	4
June	1319 18 8		Balance	3467 8	4
Total	£6902 11 8		Total	£6902 11	8

AGENTS' REPORT.

Callington Mines, Oct. 21.—In presenting you with a report of our present operations. I beg to say, the shaftmen at the North Mine are now engaged driving south for a plat in the 112; as soon as this is completed, we shall commence cross-cutting west towards the lode; the ground is rather hard for driving; we have about 150 fms. of good orey ground gone done in the 100 fm. level. In the 100 fm. level south, now about 25 fms. to the north of the great south lode, the point where we intend to communicate with the south mine, the lode is rather small, composed of iron, mundic, and silver-lead ores; the back will work at a moderate tribute. The 90 fm. level south, which is a few fms. beyond the 100 fm. level, is opening tribute ground. At Kelly Bray, the 90 fm. level east, on the Kelly Bray lode, is driven through the great cross-course; the point of this level is 78 fms. to the east of the lead course; we are now driving north, and expect shortly to meet the lode; we have intersected several branches, having a north underlie, composed of peach, mundic, and copper ores. We expect, as soon as we cut the lode, to drain the winze below the 70, so as to resume the sinking of the same, and speedily open the communication between these two points—the 70 and 90; our richest ore ground in the 70 is about 12 fms. to the east of the cross-course; the lode here being mixed with peach and fluor-spar, which is different, and more promising than the ore we first met with on cutting through the cross-course in the latter level—namely, the 70 fm. level. The lode in the 70 fm. level east is within 40 fms. of Kelly Bray shaft; the lode is still poor, a little improvement is taking place in the appearance of the same, and in the killas to the south of it, and have no doubt as soon as we get into the run of ground that we now have in the bottom of Kelly Bray shaft, of meeting with a profitable lode, and being rewarded for the outlay which has been made; the lode in the stopes, in the back of this level (70) is from 2 to 4 ft. wide, with branches of ore in the foot wall in places, and will produce about 4 or 5 tons of ore per fm. In the 50 fm. level the lode is 3 ft. wide, producing copper ore, this point is within 50 fms. of Kelly Bray shaft; we have commenced stoping the back of this level; the lode has not been taken down. Kelly Bray engine-shaft being down to the 20 fm. level, we have commenced driving east and west in the eastern end; the lode is from 2 to 3 ft. wide, of the most promising character, composed of quartz, mica, mundic, and fluor-spar, with spots of copper ore; the western end is not so kindly. We consider it advisable to cut whim-plat, and make preparations for sinking at once, calculating the present quarter will show something more valuable here than we have hitherto seen; the eastern level, we consider, should be forwarded with all possible speed; the geological features in this direction being of a more promising character; the lode being intersected by elvan and other courses. At the south mine, Johnson's engine-shaft is down to the 125 fathom level; the engine keeps the water with a 12-inch plunger-lift, going a little more than three strokes per minute. The 125 fathom level north has been driving for some time past in a hard floor of ground; the lode is mostly composed of fluor spar, spotted with silver-lead ores. In the 112 fm. level north we are now between two channels of elvans; the back of the level will work at a high tribute; in the south end we have just driven through a slide; the lode has not been taken down. In the 100 fm. level north we have intersected a large, hard, sparry cross course, through which we have not yet driven; the ground we have opened will work at a moderate tribute. In the 90 fm. level north we are opening high-priced tribute ground. The machinery throughout the mines is in good working; the north engine (50-in. cylinder) is going a little over six strokes per minute. At Kelly Bray, the water is very easy. We expect to sample a parcel of copper ores this day, computed 63 tons.—J. T. PHILLIPS.

I regret that the operations of your mine generally have not been equal to the expectations and prospects of last year; at the same time, I feel that it has been from causes not under my control. I certainly regret that extra capital was not raised for working that part of the property known as Kelly Bray; at the same time, the prospects at both the shaft and the 70 fm. level, from the lead lode, at the end of last year, justifies the most sanguine expectations of large returns of copper, which, indeed, is shown by a very few men raising 249*l.* 4*s.* 5*d.* worth of ore in the first six months of this year; the bunch, however, in the 70, did not hold up of the same richness. These prospects were fully sufficient, in the opinion of all practical miners, to justify the outlay that has been made; and I have little doubt that the lode, if fully tried, will prove productive—but how far yourselves and adventurers may think proper to do so, is for consideration. My opinion is, that the trial in the 90 will prove whether the lode, in producing bunches, is influenced by the cross-course; and I consider it should also be proved whether the proximity to the granite in the eastern part will not render it productive. The lead lode, as an independant part of the property, will, I believe, be proved to have been a profitable undertaking, and likely to continue so, when more ground is opened—to effect which we are now cross-cutting to the 112 fm. level, at the north mine; and as the levels above this, particularly the 90 and 100, have proved very productive, and gone through a very great extent of ore ground, we are fully justified in calculating on a continuance. I expect this cross-cut will take the lode in about three weeks. I expect the communication, between the north and south mine, in the 108 fm. level, will be effected in nine months, when the engine, being relieved of part of the water, will be sufficient, with a little alteration of the pit-work, to develope this part of the lode to a very great depth; but I should here observe, that the fear of its not being sufficiently powerful, until thus relieved, was the cause of this north shaft not having been sunk before; this shaft should continue sinking, as the shoots of ore, dipping south, entered about 50 fms. in the level north, in the 100. At the south mine, we have only two levels driving south—the 112 and 125; and as we have a great extent of ground between the north and south mine, under the 80, and the further sinking the shaft and cross-cut would occupy more than 18 months, I can scarcely recommend it at present; eventually, it may answer to sink a diagonal shaft, say, from about the 60, at an angle of 25 to 30°, in a southerly direction, in and through the southern shoot of ore ground. I have constantly paid attention to the dressing department, and feel satisfied that every plan is now adopted for saving all the ore that will pay, either by manual labour or machinery. I have adopted several plans for saving the time of the men, and more regular attention to their duties, by purchasing of them, on account of the adventurers, any small parcel of coarse and rank ores for the burning house, which will not only save their time in looking after it, but, by burning once a month, day and night, enables us to do it more effectually, at a great saving of fuel. I have also, with your approval, appointed a good practical miner, at 4*l.* per month, to go underground through the mine of nights, to see that the men are doing their duty, and take account of what timber is required in the operation, so as to have the same cut to the best and most economical advantage, and also to prevent what all miners are liable to—the mining the ore of the low to the high tribute pitches. I beg, in conclusion, to say, that I have every confidence in the lead lode yielding profits, when further opened, and consider Kelly Bray well worth prosecution; but regret that independant capital has not been raised for working this part.—P. N. JOHNSON.

The CHAIRMAN observed, upon the reading of the several reports, that it would be seen Kelly Bray had not been attended with those successful results which had been anticipated; while the reduction in the standard had had a considerable influence on their returns. In the quarter ending March the proceeds (234 tons) having yielded 1398*l.*, or about 6*l.* per ton; while the quantity raised in the quarter ending June (256 tons) had only yielded 1092*l.* 14*s.* 9*d.*, or 4*l.* 5*s.* per ton, which was an important point as evidence of the effect of the reduction in the standard. It appeared, that during the past quarter, an excess of 427*l.* 4*s.* 6*d.* of expenditure over the returns had taken place at Kelly Bray, making the amount expended on that mine, over and above the returns, about 3467*l.*—the balance against the mines, at the last meeting, being 3040*l.* Of this amount, however, it was only right to observe, that the engine, at a cost of 2600*l.*, had been erected, an engine-shaft sunk 45 fms., and cross-cuts driven in the 65, 70, and 90 fm. levels; indeed, as before stated, the expenditure had been nearly 7000*l.*, which was represented by one-half that amount in the shape of returns of ore—the remainder being placed against the engine, dead work, machinery, &c. It was to be considered, that Kelly Bray had been worked without capital—that is to say, without any calls having been made on the adventurers; and with reference to the returns, it should be borne in mind, that the standard, which, in January last, was at 101, had been depressed, in the month of June last, to 80, being a depreciation of 25 per cent. in the value of their ores. It was his opinion, and which he believed was entertained by his co-directors, that the cost of engine, and other expenses, should be met by a call being made upon the shares, which would form matter of consideration at an early meeting of the board. As regards the lead lode, and the prospects of it, he had to observe, that the company had experienced a considerable loss from the reduction in the price of the ores, that now obtained not exceeding 16*l.* per ton, while the former price was 20*l.* to 21*l.*

Mr. P. N. JOHNSON explained, that the lead lode had paid cost, and would leave a small profit, notwithstanding the reduction in the price of the ore, but which had been swallowed up by the outlay in Kelly Bray Mine. The present monthly cost was about 1300*l.*; while the returns were 80 tons, which, taken at 20*l.* per ton, would leave a profit, but which, at present prices, barely met cost.

A PROPRIETOR wished to know whether, supposing the 3400*l.* debt was paid off, then what would be the position of the company?—in reply to which, the CHAIRMAN stated, they would have to represent that sum, the engine, machinery, and work done, as before stated. He would take that opportunity of reading a report from Capt. Barratt, addressed to Mr. Johnson; and, in so doing, would observe, that Capt. Barratt he believed to be a very useful man, and well acquainted with the duties devolving on him, he having, moreover, been recommended by Mr. P. N. Johnson. This report, which was dated the 24th inst., was of a highly satisfactory character, and afforded evidence of the correctness of the estimate formed of his abilities. The chairman further observed, that arrangements had been made, at the suggestion of Mr. P. N. Johnson, whereby a saving would be effected to the company, and an advantage afforded to the working miner. Certain ores, or refuse, yielding, on assay, 5 cwts. 0 qrs. 7 lbs. of lead, which required much time on the part of the miner in dressing and returning, had been taken by the company, which they at once returned to the burning-house, and thus economising full 2 tons per month.

Mr. JAMES was desirous of knowing whether in addition to the engine and plant, there were any other returns which might be looked forward to as against the balance of 3400*l.* due; in reply to whom it was stated that, in driving on the course of the lode for 17 fathoms, it had been found highly productive—so much so, that being of the same character in the sole or bottom of the level, and assuming it to hold good 20 fms. (down to the 90), the returns would give 3500*l.*—Mr. JOHNSON then proceeded to read some instructions, or rules, laid down by him, for the more perfect and economical management and working of the mine, whereby the duties of the several agents were more precisely put forth, and a check enforced, which were highly approved by the meeting.—In reply to an adventurer, as to the rate of wages, and how far such bore a proportion to the reduction in the value or price of the ores, it was stated that the average rate paid for tutwork during the July month (five weeks), the last named in the accounts, was 2*l.* 14*s.* 8*d.*, or about 11*s.* per week; and for tribute, 3*l.* 11*s.* 2*d.*, or, say, 14*s.* per week.

In the course of the proceedings the CHAIRMAN stated, that a call of 1*l.* per share must be calculated upon at once; but the second call of such amount might not be required for the next six months. In the meantime, the adventurers would have an opportunity of meeting and, as he hoped, congratulating each other on improved prospects, which would have reference rather to the metal market than to the mines themselves, which he considered held out good promise.—The report and accounts having been received and adopted, and a vote of thanks passed to the chairman and directors, the meeting adjourned.

LEWIS MINES COMPANY.

A meeting of adventurers was held at the offices of the company, Finsbury-circus, on Wednesday, the 25th inst.,

RICHARD HODGSON, Esq., in the chair.

The notice calling the meeting having been read, the CHAIRMAN proceeded to read the report of the directors, with the accounts, made up for the past 12 months, ending April last, and the reports of the agents, as follows:—

DIRECTORS' REPORT.

These mines present at this time many propitious appearances, which will be particularly described in the agents' reports. The anticipations expressed at the last general meeting have, for the most part, been realised, and your directors entertain the same opinion of ultimate success in the prosecution of these mines. For the information and satisfaction of the shareholders, the property has been lately surveyed by an experienced and practical agent, Capt. Floyd, whose report will be submitted; and his account will be found peculiarly interesting, from the circumstantial statements given, and the estimated value of the ore already discovered. From this report you will ascertain that—

On the north lode, in the back of the 50 fm. level, east from tin shaft, the ore discovered amounts to	£750	0	0
And in the 40 fm. level, driving east, on the same lode, the ore discovered amounts to	600	0	0
On the south branch, driving west from cross-cut, the value of the tin discovered is	450	0	0
In the 60 fm. level, west of sump-whim, the tin discovered in the back amounts to	4700	0	0
While the backs standing in the 50 are estimated at	1500	0	0
On the south lode, in the 20 fm. level, east of copper ore shaft, the ore discovered amounts to	200	0	0
Making a total of	£8200	0	0

The whole amount of which could be taken away at an average tribute of 8*s.* in 1*l.* In addition to the valuable alterations and improvements recapitulated at the last meeting, a new and effective stamping engine has since been purchased, for which the necessary erections, including engine-house and boiler-house, stack, &c., are in rapid course of completion. The engine is calculated to carry 64 stamp-heads, which will render the returns of tin expeditious; and, further to facilitate this object, a calciner has been erected, the same being in active operation. Your attention should be directed to the fact, which, although itself evidencing the productiveness of the mine, shows, at the same time, that your interest has been injuriously affected. It is merely necessary to state that, during the past 18 months 189 tons of tin have been produced, the difference in the price of which, compared with former prices, has caused a deficiency to the company of 1130*l.* It will, however, be gratifying to state, that the prices given for tin are now increasing, and that benefit will thereby arise to this company. The reports from Capts. Noell and Floyd will, in detail, describe many material points of the progress made since the last general meeting; the directors, therefore, merely direct your attention to those statements.

The following statement of accounts was presented:—

Balance as per last statement	£2788	9	9
Costs from May, 1847, to April, 1848	7196	4	10
Interest, &c.	114	6	6
Management and incidental charges	418	0	2
Total	£10,517	1	3
Sales—May, 1847, to April, 1848	£5534	2	8
Sale of copper, arsenic, &c.	111	9	0
Instalments received on shares	2480	0	0
Balance against the mine	2391	2	7*
Total	£10,517	1	3

AGENTS' REPORTS.

Tincroft Mines, Sept. 18.—In accordance with your request, on Thursday last I inspected the Lewis Mine, and beg to hand you my report. At the North Mine, the engine-shaft is sunk to the 70 fm. level below adit. The 70 fm. level east is worth 50*s.* per fm. In the 60 fm. level east the lode is about 2 ft. wide, and tinny. In the 50 fathom level, east from tin shaft, the end is worth 3*l.* per fm.; in the back of this level about 750*l.* worth of tin is discovered. The present end of the 40 fm. level, driving east, is worth 50*s.* per fm., in the back of which tin to the value of 600*l.* is discovered; the western ends are suspended; west from engine-shaft a cross-cut has been driven south, which has intersected the south branch. At the south branch, the 70 fathom level is driven west about 10 fms. from the cross-cut, through ground averaging 5*l.* per fm.; the value of this back is about 450*l.*; the present worth of the end is 5*l.* per fm.; about 28 fms. remain to be driven, before the run of rich tin ground (gone down in the bottom of the 60 fm. level) can be reached. The 60 fm. level, west of sump whim-shaft, is extended about 15 fms. east, and 15 fms. west of the cross-cut; the east end is worth 6*l.* per fm.; the west end is worth 7*l.* per fm., and is at present disordered by a small flookan, which is apparently disappearing; 25 fms. of excellent tin ground are laid open, and the tin discovered in the back of this level may be estimated at 4700*l.*; a winze is sinking below this level by a pare of tributers, at 3*s.* in 1*l.*, the ground being worth 16*l.* per fm. About 50 fms. of in ground are laid open in the 50 fm. level; the backs now standing are worth 1500*l.*; the present end is worth 50*s.* per fm. At the south lode, in the 60 fm. level a cross-cut is driven south, which has intersected a very kindly tin lode, underlaying north; this lode is also cut by a cross-cut in the 50 fm. level, in which level going east the end is worth 5*l.* per fm. The 20 fm. level, east of copper ore shaft, is at present worth 4*l.* per fm.; in the back of this level there is about 200*l.* worth of tin ground laid open. The 10 fm. level is extended about 20 fms. east; the back is worth 4*l.* per fm.; the end is at present disordered by small cross-courses. About 8200*l.* worth of tin is already discovered, which can be taken away at an average tribute of 8*s.* in 1*l.* I am of opinion, that the north and south lodes at their junction will be very productive. The general operations are carried on in a satisfactory manner; and, on the whole, the mine is looking well, and I hope soon will remunerate the adventurers for their outlay.—P. FLOYD.

Lewis Mines, Oct. 21.—In answer to your request, I beg to hand you my report of the above mines, with a detailed statement of the operations since your last general meeting, and what we purpose doing in future. Wheal Nutt engine-shaft has been sunk from the 60 to the 70 fm. level; we have also sunk a sump whim-shaft to the same level, and have extended east 15 fms. 2 ft. 6 in. The lode in the present end is 1 ft. wide, producing some tin, and very promising. The 70 west has been extended 34 fms. 1 ft. 6 in.; the lode in the present end is 2 ft. 6 in. wide, composed of spar, peach, brent, &c., with some spots of tin; this end has been suspended, in order to drive a cross-cut south from the same towards the south branch, which, on Wednesday last, was cut, and found to be 9 in. wide, worth 15*l.* per fm., yielding a very rich quality tin. We are now preparing to drive west under that rich course of tin which we had at the 60, where it was worth 70*l.* per fm., hoping to find it equally so productive. We also extended the 70 south from engine-shaft 10 fathoms, and intersected the south branch, and drove west on the same 14 fms. 3 ft., opening good tribute ground. The 60 has been extended east of tin shaft 56 fms. 0 ft. 9 in. The lode in the present end is 3 ft. wide, producing some tin, and very kindly; this level has been driven through some very good tin ground. The 60 west has been suspended for some time, in order to drive a cross-cut south from the present end, to intersect the south branch, which we have done, and extended east and west of the cross-course 38 fms. 5 ft. 11 in. We have three pitches in the back of this level, at an average tribute of 2*s.* 4*d.*; the east end is worth 5*l.* per fm.; we are also sinking a winze below this level (60), where we are raising some good quality tinstuff, which, when holed in the 70, will cause a good ventilation. We have also driven the 60, south from copper ore shaft, 5 fathoms, and intersected a lode (or Ralph's Branch) 9 in. wide, yielding some good quality tinstuff. From the underlie and bearing of this lode, I expect it will intersect the main lode in the 70, at or about copper ore shaft, where I anticipate finding it very productive. The 50 fm. level has been extended east of tin shaft 31 fms. 0 ft. 7 in.; the lode in the present end is 3 ft. wide—saving work for tin; we have now two pitches in the back of this level, at an average tribute of 10*s.* The 50 has been extended east of the cross-course, on south branch, 34 fms. 2 ft. 2 in.; the lode in the present end is 1 ft. wide, worth 6*l.* per fm.; this level has passed through good tin ground for the whole length. We have now six pitches working in the back of this level, at an average tribute of 9*s.*; and, in the bottom of this level, we have two winzes sinking at an average tribute of 3*s.* 4*d.*; in the same level, west of the cross-cut, the end has been extended 7 fms. 3 ft. through some good tribute ground; the lode in the present end is small and unproductive. The 40 east and west are suspended until you can have more stamping power. The 40 has been driven east from the cross-cut on south branch 43 fms. 5 ft. 4 in.; the lode in the present end is 9 in. wide, worth 4*l.* per fm.; this level has opened ground that will set at about 9*s.* tribute for the whole length. We have some other pitches in the 20 and 10, on south lode, working at an average tribute of 8*s.* 6*d.* I think our underground prospects are very encouraging. We have built the engine-house stack, and nearly completed the boiler-house for the stamping-engine. We expect to set the engine to work in about five weeks from the present date, with 32 heads; and, immediately after, shall prepare to connect 32 more to the same machine; when this is got in full operation, we expect to return our tinstuff much more expeditiously in future. We have built the calciner-house, and erected calciner, and got the same in good course of work, with dressing house, &c. Considering the many important improvements in the underground prospects, and our new erections for putting the mine in good working position, since your last general meeting, I think the mine was never so promising as now for making the adventurers ample remuneration for their outlay.—S. NOELL.

* Against this balance, state 75 tons of tin at grass..... £3225 0 0
Less dressing cost 750 0 0
£2475 0 0
Add subsist advanced ..... 102 0 0—2577 0 0
The expenses of raising this tin have been paid, and the quantity is waiting to be returned by the new stamping-engine, now in rapid course of completion.

The CHAIRMAN stated, that the accounts then read showed a balance against the mine of 2391*l.* 2*s.* 7*d.*; but he was happy to inform them, that as a set off, there were 75 tons of ore at grass, which might be estimated at 3225*l.*, from which, however, was to be deducted the returning charges, which he set down at 10*l.* per ton, or 750*l.*—thus making the net returns 2475*l.*, to which was to be added subsist advanced, 102*l.*, or total assets of 2577*l.* To meet the balance, he had, with one of his co-directors (Mr. Lewis), advanced a sum of about 1500*l.*, to preclude the necessity of making a call on the proprietary; but it was only right to state, that without a further advance on the part of himself, or others, a call would be indispensable. The engine, which was now in course of erection, must be paid for—it having been purchased from the Silver Valley Mine adventurers for 600*l.*; while the alterations required, so as to render it available for stamping power, with the new heads, floors, &c., would in all amount to 2000*l.*; to provide for which, a call would be essentially necessary. The engine was of sufficient power to carry 96 heads, one-half of which would be at once put into operation, as soon as the machinery was erected. The appearances of the mine were, in his opinion, highly satisfactory; for, in addition to the ores at surface, upwards of 8000*l.* worth of tinstuff had been discovered, which might be worked away at a tribute of 8*s.* to 10*s.* in the 1*l.*—so that it might be considered the mine was clear with this quantity of ore in sight, as the engine, stamps, dressing-floors, &c., for which the call would be necessary, would be represented by the machinery and the works themselves.

Mr. P. N. JOHNSON was happy to have it in his power to confirm the representations made by the chairman. He (Mr. Johnson) was in no way connected with the management of the mine; but was most ready and anxious to afford any aid in his power.

A PROPRIETOR suggested, that the meetings of the company should be more frequent, as the meetings were now held only annually. He was well aware that the accounts and correspondence were at all times open to the adventurers, but they were not available to parties resident in the country; while he thought that, by holding their meetings more frequent, and bringing the body of adventurers together, there was much benefit derived—inasmuch that information was elicited from inquiries instituted at their public meetings: he would, therefore, suggest that they be henceforth held quarterly, or half-yearly.

Mr. P. STAINSBY, on behalf of the directors, as well as the chairman, stated there could be no objection to pursuing such a course, but that a resolution to such effect could not be put, as not being in accordance with the rules by which the company was governed. There was, however, no hesitation in stating, that the directors would, of their own accord, call a meeting of the shareholders once in six months, or oftener, if necessary.—With this understanding, the subject dropped.

A vote of thanks having been passed to Mr. P. N. Johnson, for his gratuitous services, and which was acknowledged by that gentleman, as also thanks to the chairman and board of directors, the meeting adjourned.

CARADON UNITED MINING COMPANY.

A meeting of shareholders was held at the offices, St. Michael's-alley, Cornhill, on Thursday, the 19th inst.—GEORGE MACKAY, Esq., in the chair.—It appearing that some parties were heavily in arrears, and quite incapable of paying up their calls, and that others, who were able, had not paid, it was considered that the expense of working the mine was thus thrown upon the committee and those shareholders who had paid their calls; it was, therefore, resolved—"That, in consequence of the great arrears of calls due, the operations at the mine be partially suspended; and a circular sent to each shareholder, requesting payment of calls due, on or before the 30th inst.; and that the creditors of the mine be requested to proceed against all parties in arrear after that day." A copy of Capt. Penrose's report is to be sent, with these resolutions, to each shareholder, who is requested to state in writing, on or before the 23d Nov. next, whether he desires the operations to go on, or that the mine should be stopped, and the materials sold. The 35-256th shares standing in the name of Mr. J. Edwards, and upon which upwards of 30*l.* are due for calls, appearing by a statement of Mr. Edwards, to belong to Messrs. Hopkinson and Co., bankers, of Regent-street, the solicitors of the company were requested to apply to those gentlemen, and, if necessary, to file a bill of discovery against them. The following is a copy of Capt. Penrose's report, read to the meeting:—

Caradon United Mine, Oct. 17.—In the 38 fm. level we find Moorshead's lode to be still a little to the south of the engine-shaft, and from present appearances it will go through the shaft 8 fms. deeper. Moorshead's lode, in this level, is altogether full 12 ft. wide; its leading part is more than 6 ft. wide, composed of good brown gossan, soft candy spar, flookan, prian, soft iron, and small portions of copper ore, with greens, or the oxide of copper, and soft granite; as this lode is so large, we are driving on the north part of it, and shall cut through the lode in places; we are driving west by two men, at 2*l.* per fm.; this is a very strong and kindly lode, and I have every reason to believe it will prove very productive in depth, or when out of the soft granite. It appears this soft granite is dipping north-east, so by driving west we may get out of it at this level; in this level we have cut the tin lode 4 fms. 2 ft. south of Moorshead's lode; in this place we find it to be split into several branches, some from 2 to 12 in. wide; the whole of the lode in this place is from 6 to 8 ft. wide, with small horses of granite between. These branches are composed of blue peach and spar, and I have seen in it portions of mundic and copper ore. We find this lode is much larger here than in the 28 fm. level, and are now only got through it; from its appearance I believe it will prove to be a productive copper lode in depth; in this level we are still driving south by six men; this morning I have given them 10*l.* per fm. for 1 fm., and expect to intersect the next copper lode in about 3 fms., more or less. In the 28 fm. level this next lode is from 8 to 20 in. wide, composed of gossan, spar, fluor, peach, and good stones of yellow copper ore, and it is very possible we may find it productive in this level (38); When we intersect this lode I purpose to drive west on it in search of the cross-course, which will greatly facilitate our progress in cutting the other lodes we have to the south, some of which are very promising at the surface. To enable us to sink our engine-shaft, it is necessary for us to drive east on Moorshead's lode 5 or 6 fms. around the shaft, to drain the crushed ground that causes pear the bottom of the shaft, which I consider to be necessary; when this is done I have every reason to believe we may commence to sink again with safety, and consider as far as we have seen the lodes, their character strongly recommend our sinking again.

[*For Continuation of Meetings, see page 505.*]

On Friday last, a young man, named J. Caulton, of Denby Colliery, undertook to carry an iron casting and frame, about 2 cwts., from Morley Park Iron-Works, to Denby Pottery, about two miles distant, which he accomplished with apparent ease, although he is only 10 stone weight himself.—*Derby Reporter.*

On the Winning and Working of Collieries.

BY MATTHIAS DUNN, MINING ENGINEER.

[No. XVIII.—*Continued from the Mining Journal of the 7th October.*]

VENTILATION.

According to circumstances, the air is coursed in sets of one, two, three, and sometimes four boards each; and the main current is subdivided into minor currents, for the purpose of suppling different parts of the colliery with pure atmospheric air. This system being universally adopted at all the great and dangerous places, the air being allowed to traverse in one, two, or three boards, according to the peculiar nature of the case; and as these wastes were in a constant state of falling, they were required to be travelled and kept open at great expense. By these means the waste was kept cleared of stagnant collections of gas; and as for many years the practice prevailed of one continuous column of air throughout the whole workings, it was no uncommon occurrence for the air to travel 30 or 40 miles from leaving to regaining the surface.

The South Shields Committe, page 30, in remarking upon the effects of a single column of air being allowed to traverse the whole workings, and thereby in many cases being so mixed with other gases as to become unexplosive, observe:—"This will show why long courses are sometimes less explosive than short ones, which also in newly opened mines may be rendered still more so by the greater abundance of the pure light carburetted hydrogen at first escaping in large quantities, without admixture with carbonic acid gas or nitrogen, while the inflammable gas, as the course is extended, gradually diminishes, or exhausts itself."

The travelling of these wastes was held to be a matter of great moment, and the most experienced judges of the nature of inflammable air were selected for that duty. In ordinary cases they travelled with naked candles, and as the current of air during its passage became mixed with many different gases, it required great experience to enable a judgment to be formed as to the point of danger, and which was done as follows:—The hand was placed before the naked candle, so as to render the top of the flame more distinct, which, in the case of impure air, presented a vapour whose colour denoted the mixture of carburetted hydrogen or other gases. When the air is comparatively free from choke-damp, and mixed with carburetted hydrogen, it presents a pale blue flame, whereas carbonic acid gas presents the appearance of a thick grey or brown colour; it, therefore, required great discrimination under such circumstances, and in which judgment the most experienced were often deceived. The further the air may have travelled, the greater amount of vapour it will carry with safety. The experiment by the candle was made near the floor of the mine, as the earliest colliers were acquainted with the fact, of which some modern philosophers assume that practical men are ignorant—viz.: That the natural position of the carburetted hydrogen is next the roof. The viewer, therefore, commences at the floor, and cautiously raises his candle, till he ascertains that the upper region of the air be either safe or unsafe; the candles used for this purpose being from 30 to 40 to the pound. When the air is pure, and the gas exuding from the coal, as in new works, the greatest nicety attends the trial by the candle, for the distinction between danger and safety often baffles the most cautious persons. Therefore, how can the practices of certain collieries be otherwise than dangerous, where the colliers are left entirely to their own judgment as to the use of candles?

When air is impregnated with fire-damp to a high degree, and arrives at the ventilating furnace, it often exhibits a vapour upon the small pit candle many inches in length, and sheets of blue flame are often seen to stream from the furnace without explosion; but, by custom and experience, these men are so inured to danger, that it is exceedingly difficult to inspire them with a wholesome fear, although many instances have occurred of the whole current becoming so inflammable as to explode at the furnace.

It is well observed in the South Shields Report, page 30, that one part of carbonic acid gas will destroy the inflammability of seven parts of a carburetted hydrogen explosive mixture, and one part of nitrogen six parts of the same mixture; and that in an extensive mine worked by 150 to 200 men, with 40 or 50 horses, and a corresponding number of lights, each man alone in respiration giving off every minute about 26 cubic inches of carbonic acid gas, in addition to the free nitrogen, with a proportionate increased quantity of both these products from horses and lights, besides the immense amount of the natural carbonic acid gas of the mine, it is clearly evident that all these noncombustible gases will diminish considerably the explosive quality of a lengthened column.

It often happened that the state of the air in there fallen wastes were such that the naked candle could not be made use of, in which case the only resource was the steel mill, the invention of Mr. Spedding. Although this light was considered safe under ordinary circumstances, yet it has frequently been known to produce explosion. The sparks from the steel mill, when elicited in atmospheric air, are bright, small, and pale red; in air mixed with inflammable gas, they become brighter and more vivid, and in air mixed above the fiery point they are more vivid, luminous, and enlarged; and under those various circumstances, an experienced person can form a fair opinion of the point of danger, for in cases in which the furnace is burning off the gas in flakes as before mentioned, the periphery of the steel mill is surrounded with blue vapour. In air so much mixed with carbonic acid gas as to nearly extinguish the flame of a candle, the sparks are blood red, and emit little or no light, and are similarly affected in hydrogen gas unmixed with atmospheric air.

In the sinking of Murton West Pit, in the county of Durham, already mentioned as having produced a very dangerous blower, it was found necessary to enclose it by curb tubbing, and convey the gas given out to the surface by means of a pipe, which continued to discharge freely for many years. In performing this operation no candles could be admitted, but a large mirror was employed at the surface to reflect the sun's rays down the shaft, which afforded ample light during the day to accomplish the work.

As experience in the management of difficult and extensive mines advanced, great inconvenience was constantly experienced from a single current becoming adulterated in its passage through the ramifications of the mine; and an idea was conceived of splitting the air—that is, dividing the principal current into several minor currents, directing them into different parts of the workings, so as to supply fresh air for the immediate use of the workmen, which would answer a good purpose. The chief difficulty attending this system arose in the regulating and guiding these currents, so as to prevent the column connected with the shortest route to the upcast shaft from robbing the other currents. To obviate this objection, a regulating slide stopping was placed in the course of each current, the contraction of which regulated the quantum of air traversing other courses.

Crossings.—In the subdivision and splitting of these air currents, it is often necessary to turn and twist them over and under each other, by means of crossings formed by enlarging the roof, and then inserting either a brick arch, or a flooring of wood, placed upon brick walls, being at the same time completely enclosed at the ends; thus the fresh current is made to pass inward along the horse-roads or principal passages, whilst the vitiated air is returned over the workings, or other private passages, to the upcast shaft. The equalisation of the respective currents is effected by means of a regulating slide stopping at the outlet of each, the air spaces being in proportion to the distance, or to the degree of obstruction with which each current has to contend during its course. The rolley ways along the levels are sufficiently ventilated by the leakage of the doors, which are placed in pairs, so that whilst one door is open for the passage of the horse, the other may remain shut; or in case of necessity, as the workings extend, each of these rolley ways may form additional split air currents, to supply other portions of the workings. If this system be rightly arranged, it has a peculiar tendency to safety, inasmuch as the fresh air being scientifically impelled into a circuitous path, will escape into the waste or return at every casual interstice, and in scarcely any instance will the foul air have any tendency to make a retrograde movement towards the fresh air, except where it is pent up in quantities, or where the circumambient air may be in a stagnant or sluggish state. Therefore, the system of splitting the air is beyond question a great improvement over the principle of a single column traversing the whole passages of the mine. As before observed, the system may be overdone, if the sum of the whole currents be unequal to meet the exigencies of the mine, either from its great thickness, or because the workings may be ramified and extended to an unreasonable area.

[*To be continued in next week's Mining Journal.*]

EXPLOSION IN A COAL VESSEL.—One day last week, the brig *Sceptre*, laden with coals, was lying in Monkwearmouth Dock, with the hatches battened down and all ready for sea. One of the boys went on board at night, and lighted a lucifer match in the half-deck, when a violent explosion was caused by the gas, which had escaped from the coals. The deck was blown up on each side of the hatchway, and the long-boat was lifted from its seat, while the boy was much burnt on the head and hands."

THE MAESTEG IRON COMPANY.

This case was further heard, before Mr. Commissioner Stevenson, at the Bristol District Court of Bankruptcy, on Thursday, the 19th inst., when Mr. SERRELL, of London, appeared on behalf of the assignees and some creditors to a large amount, and drew the attention of his Honour to an order made by Mr. Sergeant Stephen at the last meeting under this fiat, on the 8th of August. In consequence of the opposition offered to the balance-sheet then filed, the bankrupts were directed to file an amended balance-sheet and cash and stock account; and the simple question now before the Court would be, whether the order of the learned sergeant had been so complied with, as to entitle the bankrupts to pass their last examination. The order made was to the effect, that a new balance-sheet and cash and stock account should be filed, containing particulars of the transactions between the bankrupts and the Vale of Neath Brewery Company, together with an account of the application of various sums down to the appointment of the inspectors under the estate. That balance-sheet had been filed, and, together with an account of the private estate of each partner, had been delivered to the official assignee. He (Mr. Serrell) should have no observations to offer respecting the private estates of the bankrupts, but, with regard to the joint balance-sheet, he should have to submit some facts to the court, of which it was necessary that his Honour should be put in possession. These facts would embrace a reference as well to the Maesteg Iron Company as to the Vale of Neath Brewery Company, and a subsequent company, formed in January, 1845, because the transactions of the three concerns were so mixed up, that they must all form the subject of the present investigation. In 1844, or previous to that date, the Vale of Neath Brewery Company comprised about 70 partners, among whom were the seven bankrupts, Messrs. Stothert, Spender, Wood, Buckland, Brunton, Little, and Rusher. That concern went on, with what success he would not say; but it was evident that it could not have been very great, or otherwise the partners would not, one by one, have left, and bequeathed their responsibilities to those who remained. In January, 1845, this company was ended, as far as it could be, and a new one formed, under the title of Stancombe, Buckland, Marriot, and Co., whose affairs were also in this Court, and were not yet half investigated. In January, 1845, also, the works having been purchased in 1844, the Maesteg Iron Company was formed—the seven bankrupts composing that company, and, with six others, making the firm of Stancombe, Buckland, Marriot, and Co. From the commencement of the working of the Maesteg property, it was evident that it was a very prosperous concern; but it had been brought to ruin by the advances continually made to the Brewery Company; and while the Maesteg Iron Company was making a profit of something like 12,000*l.* a-year, it was raising money in all directions, and by all means, to relieve the wants of Stancombe, Buckland, and Co. The Maesteg Iron-Works cost 25,000*l.*—the whole of the purchase-money was not paid down, but the works were bought subject to a mortgage, which still existed. The partners brought in a capital of 4000*l.*, but it was hardly introduced before it was abstracted, and the whole amount paid to creditors of the firm of Stancombe, Buckland, and Co. From that moment large sums were continually taken from the Maesteg Iron Company for similar purposes, so that, between January, 1845, and February, 1847, a period of two years and two months, not less than 50,000*l.* had been advanced by the Maesteg to the Brewery Company. However prosperous the Maesteg Company might or would otherwise have been, such proceedings produced a result which must have been foreseen by any man of judgment—viz., the ruin of the company, and the hopeless loss of from 70,000*l.* to 80,000*l.* so advanced, upon which they could never hope to receive a shilling. In the last year of that account, 30,000*l.* had been so advanced by the Maesteg Iron Company to the Vale of Neath Brewery, or the new company of Messrs. Stancombe and Co. There was no question as to those sums being advanced, because there were promissory notes in the possession of the Maesteg Company to the amount of 47,000*l.*, from the Vale of Neath Brewery and Stancombe, Buckland, and Co., from which it appeared that the Maesteg Company had not merely been paying the debts of Stancombe, Buckland, and Co., but of the Vale of Neath Brewery, in which there were 70 partners, who ought to have been held responsible. In addition to this, large losses had accrued upon the purchases made by the Maesteg Company of iron in London. Now, their business was to manufacture iron and sell it, and beyond that they ought not to have gone, because, although it might happen that an ironmaster was obliged to purchase to supply an order which he was unable himself to complete, yet it could not be admitted that a party should buy to-day—sell to-morrow—convert the bills thus obtained into cash, and put the money into his pocket. A large amount had been abstracted from this estate in this way, for the purpose of advances to the Brewery Company; and these features of the balance-sheet must form the subject of future discussions, so that if there were any delinquency, it might be visited on the proper parties. The Court would thus be enabled to distinguish between the cases of the bankrupts, of whom there were seven. Some, he believed, had done little more than put their capital into the concern—others who had interfered appeared to know very little of the matter; but there must be some who were personally acquainted with the facts, and who could not plead ignorance of what must necessarily have been the result of the regularity of thus abstracting a large amount of funds to uphold the credit of a sinking company. Mr. Serrell proceeded to state the additional information required by his clients, and asked his Honour to allow the assignees to employ an accountant, at the expense of the estate, to endeavour to obtain something like a satisfactory exposition of the bankrupts' affairs.

Mr. TURNER, who appeared for Messrs. Richardson and Cuthbert, two creditors of large amount, supported Mr. Serrell's application.

Mr. RICHARDS, who appeared on behalf of four of the bankrupts (Messrs. Buckland, Little, Brunton, and Rusher), said, it was unquestionable that considerable loss had been sustained and inflicted by this unfortunate company; but that loss was to be attributed not to the misconduct of the bankrupts, but to the pressure of the times, under which many stronger men had been bowed down. The cash account contained details of every item which had passed through the hands of the bankrupts since the formation of the company, on the 1st January, 1845, till it passed unto the hands of inspectors, in March, 1847. During that period the receipts had been no less than 368,414*l.* 11s. 9d., and the balance which appeared at the close of the account of cash in the hands of the West of England and South Wales District Bank, 15*l.* 7s. 10d.; in the Commercial Bank, 10s. 7d.; and in the hands of the manager of the works, 1*l.* 5s. 3d., which, with the other payments, made the total amount equal to the receipts of the bankrupts; so that, on this large sum, there was not a deficiency of a 6d., or even of a 1d.

Mr. SPENDER, on behalf of his friends, Mr. Wood and Mr. W. Stothert—the latter gentleman being absent, in consequence of illness—said they had engaged no professional defence, because he did not consider that they required any; or, at least, they were quite ready to defend themselves. They had already rendered all the particulars with which they were acquainted, and he, therefore, hoped that they might be allowed to pass. He appealed to Mr. Serrell, as the representative of the assignees, for their concurrence, if he were not asking a thing contrary to the forms of the Court; but which, perhaps, he was doing from ignorance of usage in these matters.

Mr. WOOD expressed his concurrence in these views, adding that he had done all he could to avert the catastrophe, as well as subsequently to afford all the information in his power.

Mr. SERRELL said, that, as he had been appealed to by the gentlemen who had just addressed the Court, he had no hesitation in saying, that every information they possessed had been afforded, though he feared the Court could not grant the request which had been made.

Mr. MALINS (one of the inspectors, and a creditor to a large amount) said, he was the holder of some fictitious bills, of which there were several others, purporting to be drawn by the Tees Valley Company, which had passed to him by Mr. Buckland, one of the bankrupts, for which he had given him value, and on which he (Mr. Malins) should like to have Mr. Buckland examined.

Mr. Buckland (one of the bankrupts) was then partially examined, touching some bills drawn by the Maesteg Iron Company on the Tees Valley Company. It appeared that there was no such concern as the Tees Valley Company in existence; but Mr. Buckland stated that Mr. Lusett, the party by whom the bills were accepted, was introduced to him by brokers of respectability in London.

Some further discussion took place as to the sufficiency of the accounts already filed by the bankrupts; but eventually his Honour acceded to the application made on behalf of the assignees, and adjourned the case to 23d Nov.

GIANT PROGRESS OF STEAM.—The beginning of the year 1849 will be distinguished in the history of this country as the period when a steam communication, by way of Egypt and India, was established between Great Britain and our vast colonies in Australasia. For some months past, powerful and well-appointed steamers have been leaving Southampton Water, and wending their way to the Indian Ocean, prepared to convey, or to supply the place of those which may be appointed to convey, mails between Singapore and New South Wales. The gradual progress and extension of steam navigation in the east, from Egypt to India, and from India to China, almost prevents from estimating the magnificent enterprise which is now about to be completed. In five weeks' time the Government will have entered into contract, probably with one single steam navigation company, for the conveyance of mails eastward for upwards of 12,000 miles. Very shortly, a letter posted in England will delivered in two months afterwards at the antipodes. Two lines of steam navigation will be found branching off east and west from this country. The one to the east will, by means of a branch steamer from Sydney, extend from Southampton to New Zealand, and the other to the west, extending also from Southampton, through the Mexican Gulf, to the borders of the Pacific Ocean; and at no distant day, perhaps, an ocean pathway will be formed which will extend around the globe, and be only broken by the Isthmus of Suez and that of Panama.

PRUSSIAN RAILWAYS.—The line from Ruhrort (Rhenish-Prussia), to the town of Oberhausen, where it branches on the Cologne and Minden, has just been inaugurated and opened for public traffic.

THE GOLD MINES OF AMERICA.

The gold region of the United States (as at present imperfectly explored) stretches from near the Potomac in the north-east, to the Chattahoochee head waters in the south-west—a distance of several hundred miles. Though conforming generally to the course of the Allegheny Ridge, "the backbone of the United States," it lies some distance southerly at this end, approaching irregularly nearer, and finally blending with, the great range itself near the dividing line of North and South Carolina. Further south, it seems to recede from the mountains, and approach the sea-coast; but all is yet vague and uncertain. We know that in certain localities gold in considerable quantities has been obtained, by mining or washing; but whether it is confined to those localities, or extends over a much wider area, is not known. Geologists may say confidently, that in such or such a formation no gold ever has been, and probably none ever will be, found; but even the outlines of the geology of the Southern States is yet so imperfectly known, that very little can be safely affirmed with regard to it.

Digging and washing for gold has been prosecuted in certain portions of Virginia, North Carolina, and Georgia, through several years past, with varied success. Some have grown suddenly rich by it; others have realised moderate gains, or held their own; some have impoverished themselves. Nothing is easier than this last, even in a country rich with "the shining dross." Mere digging and washing of sand and earth must ever be a precarious business, unless the earth operated on be that wherein the mineral was primarily deposited—unless, in short, it be a mine. Washing the gold-bearing sands of rivers and streams must necessarily be as precarious as fishing, or any other industrial lottery.

Want of science, of experience, of means—such is the briefest synopsis of gold mining generally. We suspect the immense returns of gold obtained through late years by Russia from her Arabian mines, are due quite as much to good management and abundant capital as to the richness of the ores; especially as the deficiency of skill in the separation of the precious metal from the substances wherein it is embedded has been a serious obstacle to profitable working. A friend, who recently visited some Virginia mines, casually stated that he washed a bucket of the refuse whence the miners supposed they had extracted the gold, and obtained a liberal yield of that metal—quite as much as those who had washed it before him did. We understand that a recent invention remedies the waste here indicated, by extracting the whole of the metal—99 grains having been obtained, on a test trial, from a bucket of earth through which 100 grains of gold-dust had been thoroughly disseminated. This discovery is expected to work a great and instant change in the productiveness of gold mines.

A friend, who recently visited that portion of the ascertained gold region of Virginia lying nearest us (Stafford and Spottsylvania counties), writes as follows:—"Many rich gold mines have been discovered in this vicinity by farmers, while plowing and digging on their lands. Some have in this way been made suddenly rich. These mines are now being worked with science and economy, under the direction of northern capitalists. Some of the estates or farms have thus been found very valuable, the ores in some instances having yielded as high as $2500 per bushel! by the new process, which extracts five times as much from the same quantity and quality of ore as the old methods did. Thirty or forty estates, known to produce gold, have changed hands, on the strength of the excitement which this discovery has created; and capitalists and miners are now examining and buying.

"The working as yet proceeds cautiously—in fact, it has generally but begun. The veins are shown to be rich, abundant, and extensive. Single veins have been traced for a mile or more, and shafts sunk to the depth of 200 feet, at which depth the veins are regular and of increased width. Warned by experience, the works are now prosecuted with strict economy.

"The gold region of Virginia, so far as ascertained, commences 10 miles above (north of) Fredericksburgh, and has been traced south-westerly through that (Spottsylvania), Stafford, Culpepper, Orange, Louisa, and other counties. So far as has yet been ascertained, it varies from 6 to 10 miles in width. One farm has already produced $150,000 worth of gold; but there are, doubtless, farms on which none as yet has been found which may prove as rich as any. The large sum above named has been mainly obtained by washing surface earth and gravel. Working in this way generally leads in time to a discovery of the veins whence the surface mineral was thrown off. Large purchases of land here, on British account, are reported.

"The regularity of the veins is ascertained, as well as their richness. The same vein has been traced through and worked upon two or three estates. The vein-stone is quartz, carrying spar, clearly defined from the soft crumbling slate which is the prevailing rock, and which is easily mined with a pick merely, without drilling or blasting.

'Fredericksburgh has been aroused to activity and thrift by a concurrence of good influences. A vote of the citizens, nine to one, has recently decreed a subscription of $50,000 to the Blue Ridge Railroad. The water-power canal, taking the Rappahannock from its rocky bed, and conveying it through the town to tide water below, is to be finished this fall. The fall is 60 feet; the river as large as the Merrimac. It is said, that several prominent young men of the place have been for years learning the business they hope to follow at home when the factories go up. Thus the town thrives, and promises to become large and wealthy."

We recently examined, at the office, Broadway, a large collection of specimens of gold ores, from the property known as the "Monroe Gold Mine," Stafford County. They look rich, and will reward curiosity; their intrinsic value, and importance as indications, are matters for the miner or geologist. Should the results of the present operations prove so favourable as to excite a gold fever, we trust it will be a fever for actual mining and working—not for bubble stock speculations. There is, doubtless, mineral wealth enough in the country to reward liberally the outlay of labour and capital required to develope it. So let it come to the light.—*New York Tribune.*

CERTAIN PREVENTION OF EXPLOSIONS IN STEAM ENGINES.—It is impossible for the force of elastic steam to produce the breaking of engines and rending of boilers that so frequently occur, they are the work of the explosive principle, when disengaged from its combination with steam. Similar in its effects to lightning, it is identical with electricity in its distinctive properties; its velocities are in effect unlimited; it is devoid of weight, and not subject to the laws of gravitation, which are inherent in all matter that has weight, and it is hence evident that it may be conveyed away by similar conductors. It is absolutely certain that the explosive principle is disengaged from steam as it is let into the cavity of the nozzle, or valve chamber, on the opening of the steam valve; the pressure that kept them combined is then in great part taken off, until the cavity is filled with steam. There is no proper escape of the explosive element from the nozzle, which is heated, and in effect insulated, and the accumulation is highly dangerous; but it may be safely carried off by proper conductors—those most convenient are small copper tubes. One end of a tube of proper length is to be terminated in the best manner for the diffusion of the electric fluid—the other end to enter the cavity of the nozzel, and have over its orifice a slight valve, kept by a spring a little open, to allow the explosive element to pass off by the tubular conductor, the valve to close by the force of steam, as the cavity becomes filled therewith. The conductors of a condensing engine should be carried high enough above the water in which they terminate to preserve the vacuum. The security from explosions and breaking of engines must be complete, the cost and trouble only nominal.—J. WILDER: *N. Y. Tribune.*

HYDRAULIC POWER.—An engine, moved entirely by the pressure of water, has been exhibiting in operation in the premises of the water company for the last few days. The engine is constructed upon the horizontal principle, the cylinder being 2 inches diameter, and length of the stroke 12 inches. It can be worked at a speed of from 60 to 80 strokes a minute, but it is calculated to work at 39, at which speed it is equal to three men's power. We particularly observed the motion of the slide valve, which was opened and shut almost instantaneously with a very pretty mechanism, leaving the passages open for a considerable period during the stroke—thus allowing the water to discharge itself freely from the cylinder, a difficulty hitherto experienced in the working of hydraulic engines. The engine, we understand, was made by Messrs. Steele and Sons, Lilybank Foundry, at the request of the manager of the water company, and is entirely an experimental engine. It proves the efficiency of water as a motive power, when applied in this manner, and will be found of great benefit to those requiring a small supply of power, as it can be erected in any position or situation, and requires no preparation to put it in a working state, nor any particular knowledge in the management, as it is set a-going, and put off, by the simple turning of a stopcock. One great advantage connected with a hydraulic engine is, that it may be placed in any part of the premises, wherever it is found most desireable, without any risk of fire—a drawback at all times to the utility of ordinary steam-engines. It is on that account particularly valuable for wrights, &c., where a danger of fire exists. The engine has attracted considerable attention, no doubt from the consideration of the many useful purposes it can be applied to. Messrs. Paxton and Sinclair, tea and coffee merchants, Reform-street, had a quantity of coffee ground by the application of the power, in presence of a number of spectators, who testified their admiration of the neat and efficient manner in which the machinery was propelled. We understand it is the intention of these gentlemen immediately to avail themselves of the invention throughout their operations.—*Dundee Warder.*

[At Peebles, we lately saw a wheel of small size and diameter, which is turned by no more water than what is conveyed in a leaden pipe of about an inch in the bore. The power, which is employed to work a pump in connection with the public gas works, is equal to that of two or three men. How easy would it be to fit up machinery of this simple kind in cities—how inexpensive the power! A pipe of water introduced into a dwelling for domestic or other purposes, might, in the first instance, be led to the top of the house, and made to turn a wheel in making its descent to the lower floors. The world has not yet awakened to hydraulics.—ED. *Chambers' Edinburgh Journal.*]

Original Correspondence.

AUSTRALIAN COPPER ORE.

SIR,—I do not know that I could adduce stronger proof, in confirmation of what I have often stated regarding the richness of the ore from the Burra Burra Mine, and also the facility of reducing it to the metallic state, than by referring to the last "Price List" in your Journal of the copper ores sold at Swansea and Redruth. According to that list, it will be found that the ore from the above mine brought upwards of 10*l.* per ton of metal more than the ore from Chili—the latter, I believe, to have been in the state of *regulus*, and, therefore, more valuable, as regards the ordinary process of smelting, than if it had undergone no preparation. Now, owing to the smelters discarding the sulphur of the ores in their process of reduction, we find that the Cornish ores are worth only 54*l.* 11s. per ton of metal; the Chilian, 57*l.* 3s. 3d.; and the Australian, 67*l.* 9s. 5d. I have no hesitation whatever in stating that, were the sulphur saved, in the shape of vitriol, the Cornish and Chilian ores would immediately change places; and I would not despair of seeing the Cornish ores take rank even before the Australian—for it must not be forgetten that, although the ore from that most remarkable mine, the Burra Burra, is rich and easy of reduction, yet its ingredients, beside the oxide of copper—viz.: carbonic acid and water—are of no value.—W. BIRKMYRE. *Oct.* 27.

THE LEAD TRADE.

SIR,—On looking at the annual returns of lead ore raised in various parts of the kingdom, published by the Museum of Economic Geology, Craig's-court, I have noticed with regret the decrease of produce from the Derbyshire mines. In 1845, the quantity stated is 8571 tons; in 1846, 7571 tons; and in 1847, 7150 tons. The yield for this year must be considerably less, as I am informed that the smelters are obliged to draw their supplies from distant markets, to keep their furnaces in work. The causes which have produced this state of things must be related to various effects—such as the low prices now given for lead produce, the abandonment of many mines in consequence, the unproductiveness of others, and, if I am correctly informed, to the uncertainty attending all mineral discoveries in that county, and to the expenses demanded by heavy drainage. Feeling deeply interested in the development of our mineral wealth, and in its progress, or decline, I would thank any correspondent, acquainted with the Derbyshire district, to favour me with particulars of the present position of its mines, the effects of their decrease on the smelter, and their future prospects.—Z.: *London, Oct.* 27.

IRON AND ITS VARIOUS CONDITIONS.

SIR,—I cannot agree with Mr. Leighton as to the mixture of cinder with bar-iron, if by cinder he means oxide of iron, fused with the oxidised bases of lime, clay, sand, &c. I conceive that the oxide of iron must of necessity be revived by the carbon of the bar-iron during the cementing heats, applied after the bars are piled for reheating and welding, and that it leaves the oxidised bases mingled with the iron, as silicates of lime, alumina, &c., in the state of cinder, but not of black iron-glass or cinder; and this cinder is, I imagine, completely expelled by the action either of the hammer, or of the rollers, or of both. If an excess of any oxidised base be present, so that a portion of it is not dissolved, and, therefore, is not in the state of glass, or cinder, then that portion will not be expelled; but, being retained, will confer some blemish upon the quality of the iron, according to its nature. If it be lime, then the bar-iron will be dark, fibrous, and tough when cold, but apt to crack along the edges when heated. As I do not know of any oxidised base, or of any metallic base, which does not, in one way or other, deteriorate the quality of bar-iron with which it is united, I am at a loss how to ascribe any excellence of quality to the presence of one or several of these bases. If it be necessary that any one of these bases should be present to form good merchant iron, I must then admit that several ought to be present; for any one will, by itself, confer such a peculiarity upon the character of the bar-iron that, unless counteracted by another base of opposite nature, the iron would be unworkable, except for a few purposes.

Nothing can be more pure than good Swedish bar-iron, and it can be applied, with perfect facility, to every purpose for which merchant iron is at present adapted, and, by a *good* smith, it will be preferred to the latter. The great fault lies, I think, in bringing the iron twice—once in the refinery, and once in the puddling-furnace—intimately into contact with cinder, as constituting black iron-glass, in mixture with oxidised bases; for portions of these oxidised bases are enclosed in the masses of puddled iron, and, unless liquified, and carried off as glass, they remain, to deteriorate the quality of the iron. I have recently seen some iron, prepared entirely from oxide of iron (nearly pure) and charcoal, which possessed every characteristic of good bar-iron, and, especially, most surprising softness and ductility under the hammer at any heat, together with a maximum degree of toughness and body when cold. It was, in fact, impossible to find a single fault with it, and, to my certain knowledge, it had never been in contact even with the cinder of the blast-furnace.

Coleford, Oct. 23. ROBERT MUSHET.

CARBON AND COPPER.

SIR,—If Mr. Prideaux wishes to combine carbon with copper, he will effect this object by exposing filings of pure copper and lamp carbon, in a close vessel, to the action of a long-continued heat, always taking care to regulate the heat so as not to risk the premature fusion of the copper. The flue of an assay furnace is a suitable place wherein to perform the cementation; and, in some experiments made by my late father, the copper was exposed to the action of a moderate heat for six or eight hours per diem during the week, the furnace being used for other experiments; the maximum gain in weight observed was 2·37 per cent. The fact of this combination is nothing new, for it was first observed by Priestley, as far as I know.—ROBERT MUSHET: *Coleford, Oct.* 23.

BLAENAVON IRON-WORKS.

SIR,—The remarks of "Cymry" are so very *pointed*, that I imagine the shareholders will at once agree to his proposal, and dispose of their immensely valuable property to "*somebody*," anxiously waiting to purchase, for a trifle, their splendid minerals and extensive works. "*Somebody*" knows the intrinsic value of the concern perfectly well, and the unfortunate shareholders will, many of them, live to see "somebody" realising a fortune from their present profitless undertaking. ROBERT MUSHET.

Coleford, Oct. 23.

BLAENAVON IRON COMPANY.

SIR,—Though most unwilling to add to your voluminous, and often mistaken, Blaenavon correspondence, yet my name having appeared in a letter in your last Number, signed "Cymry," I claim your insertion of these half-dozen lines, to inform your said correspondent, that he has, inadvertently, committed two errors—viz.: first, by the words, "trio of *directors*," instead of trio of *inspectors*; and, secondly, by the insertion of my name as one of those inspectors. W. H. WEST.

Gliffaes, Oct. 25.

IMPROVEMENTS IN OBTAINING AND APPLYING MOTIVE POWER.

RESPECTED FRIEND,—The explanation given in thy columns, on the inventions of J. Weston, prove at least that it is quite practicable to carry them into effect; which, in fact, is what I have never disputed. The question is, whether they possess sufficient advantages to induce railway companies to adopt them? My former remarks on the subject were written perhaps hastily, under a feeling of disappointment, as I must confess that the writings of J. Weston had led me to expect more in the specification of his patent, in which I had felt particularly interested. I was also aware that the railway "powers that be" would not examine an invention in detail, unless it promised very great advantages over the present system; for it is well known, that many valuable inventions have been neglected by the indifference of railway directors; or, rather, of the engineers in their employ, who seem to be considered as oracles in respect to inventions. To such an extent indeed does this evil exist, that not only are the most valuable inventions thrown aside, but the most worthless and expensive plans are adopted, in defiance of common reason; thus the atmospheric mode of propulsion has been abandoned—not because the principle was not sound, but because one of the worst valves ever patented was adopted; probably, because the patentee had the most influence with the eminent engineers—who, by the way, seem to think their eminence a sufficient shield for the most glaring errors, although those errors may have to be rectified by the shareholders in a rather unsatisfactory manner. The knowledge of these facts might lead any one to fear lest J. Weston would not be able to surmount the obstacles in the way. At all events, there seems no other mode by which he can succeed, but by enlisting the mass of scientific men in favour of his inventions, unless he possesses sufficient influence to get them adopted at once, on a large scale, as an experiment.

But, to enter more particularly into an examination of this invention, my opinion would be to consider it rather as a discovery for combining two known principles, than as a perfectly-matured invention—a discovery which may prove the groundwork of a more perfect plan. Thus, the vast number of pistons required along the line I cannot but consider a defect, and I believe they could be dispensed with, without materially changing the principle. To say that these pistons and valves are complicated, would not be perfectly correct. Neither can we say that a clock is a complicated machine; yet if a few hundred of the latter were required to work regularly, in order to ensure the perfect working of machinery on a large scale, and that the derangement of one would be injurious to the working of the whole, it will not be denied that there would be some difficulties in the way: thus, the atmospheric tube patented by Pilbrow, was, perhaps, one of the most ingenious that could be conceived; but the great number of cogs required to transmit the power from the piston to the train, proved fatal to the plan. The valves opening in the pistons would, I fear, produce the same results; for, if one of the valves was to get out of order, by some trivial accident, the vacuum would be destroyed in the whole length of the tube. Yet this of itself does not prove that the principle of combining the two principles is not sound, any more than the failure of Pilbrow's tube could not prove any defect in the principle of atmospheric propulsion: but we must not forget that every failure of a plan, through some defect in the details, strengthens the opinion of those who were its enemies—they are ready to chuckle with delight on hearing of the difficulties which may be encountered, as if those difficulties proved the principle tried to be worthless; yet it must be confessed, that in most important inventions there has been sufficient success, even in the first attempts, to warrant the arriving to the conclusion that success would be eventually the result. Such was the case with the steam-engine, with the railways, railway locomotives, and with wrought-iron railway tunnels; and it has been the case with the atmospheric railway, however confident its enemies may be to the contrary. These remarks may, perhaps, prove to J. Weston the importance of perfecting his invention—so as to render an absolute failure an impossibility; and, instead of being content with what he has already done, to consider it rather as a stepping stone to a more perfect plan; and that the principle from which he has started is susceptible of being carried further, no one, I believe, will deny.

The end aimed at by J. Weston is instantaneously to condense the steam after it has passed through the high-pressure cylinders of the locomotive, and to apply the power produced by the vacuum to the propulsion of the train, in order to diminish the weight of the engine—this, indeed, has been long considered a desideratum, and several engineers have sought to attain this end, but by different means. It is well known that cold water is the best condenser, but if the engine could not carry a sufficient quantity, cold air might answer, if properly applied, but it has not yet, I believe, been tried; but when once condensed, by whatever means it may be, the power resulting therefrom can be easily applied to propel the train—consequently the pistons and valves might be dispensed with; a small pipe with a continuance valve, which would be opened by means of a hollow coulter communicating with the engine, would answer; neither would it be essential to surround the pipe with cold water, as this would require a double pipe with a continuous stream. A condenser placed at each station, with a stream of water falling on the outside, would be sufficient; but if the principle was applied in conjunction with the ordinary atmospheric tube, a communication might be effected between the vacuum and the engine, by passing the hollow coulter through the piston, the steam would not neutralize the vacuum in front of the piston, as it would be rapidly condensed. But I will beg to submit another plan, which, as far as I know, is perfectly new, and to which J. Weston is quite welcome: it is to combine the high pressure and condensing engine in the locomotive itself, without using stationary engines to condense the steam. Along the line, between the rails, I would lay a small pipe, furnished with a continuous valve, opening inwards, similar to those proposed for compressed-air engines; but, instead of filling it with air, I would fill it with water, which would be kept under pressure, either by means of small reservoirs at each station, or by communicating them with the water-works of the various towns along the line; a communication would be effected between the condenser under the boiler and the water in the tube by means of a hollow coulter, which would press down the valve, as the train would be propelled, while the pressure of the water would raise the valve again in its proper position; a continuous stream of cold water would rush in the condenser, and sustain a powerful vacuum in the cylinders; but another advantage would be that *the heated water might be pumped into the boiler*—so that no heat would be lost.

Whether this is the long-sought solution of the problem, is not for me to decide. I will leave it in the hands of those who have the time and inclination to pursue the subject further. If the principle is sound, it may be worth a trial, as it will be seen that the whole is simple; but I would advise those who may interest themselves in the matter, not to do so for the sake of pecuniary advantages. These are times in which science should be studied for its own sake; and those who do so, may contribute an atom to the general stock, without being disappointed as to the result. In fact, if we could read the lives of the mass of inventors, it would unfold many a useful tale; yet we must not suppose that it is the world which is the most to blame, but rather the inventors themselves, who are apt to overrate the value of their inventions. I believe the most valuable and gigantic inventions have never been patented—the originators being philosophers, as well as men of science. I do not say that all patented inventions are useless, although the majority are; but if any one will take the trouble of inquiring into their history, they will agree that to patent an invention is to consign it to the tomb—the inventor paying the funeral expenses: nay, more, each title of a patent is, in many instances, a kind of epitaph on the inventor!—not very consoling for the fraternity; but "thus it is"—besides inventors are not worse off than poets, who are generally sufficiently wretched to envy the inventors of pencil-cases and coal-scuttles.—JOHN DE LA HAYE: *London-road, Liverpool*, 10 *mo.* 24.

RAILWAY AND JOINT-STOCK COMPANIES.

SIR,—As your Journal is not one-sided, allow me to point out to you one of the very greatest of all the evils attending railway and joint-stock companies. I do not write from hearsay, but from an actual knowledge of facts; and I will, if this statement is denied, give you time, place, and circumstances. I would not injure the feelings of those in power; but I do hope things will be altered, and that the really deserving man will get his proper reward. I can perfectly understand the statement made by Mr. T. Deakin, of Blaenavon, and so can every practical man; but who are to blame? is the question. I immediately answer it thus—Many persons having a little capital, and a great many dependants, start a company, solely for the purpose of making that company support each and every unoccupied person belonging to them; by and bye, those who have money really to invest join; large funds are procured, and large works are projected; when boys, hardly fit to read their lessons, are palmed upon the company as surveyors, engineers, &c., who know about as much of either as Dominie Sampson did of the black art; but there they are, with cigars and wine, top boots and chaises, levelling staves and chains, field books and pencils—dashing away like madmen, and coming back with a lot of scratches, intended to form something called a map, or a section. This goes on; and it is actually engraved and put into the hands of the solicitors, who very soon detect what it is made of: if there is time it is, perhaps, altered, and again rejected. I have known this practised three or four different times, at an enormous expense, and the work at last put into the hands of a practical man, who is hurried to death to get it done at the last moment, and who gets but a mere moiety of its value, and, perhaps, not even common thanks for saving the credit of the engineer, at the last gasp. I have known many a highly intelligent first-rate man discharged from his employment by the representation of some puppy, not possessing the smallest fraction of his capacity, whilst the other is kept, because his friends give good dinners, or send presents of different kinds to those in power. Take any office in 1845, 1846, or 1847, and out of the whole number employed in it, tell me how many did any *real* work; and, perhaps, it is the same even now. Tell me how many of the youths I have described are there on sufferance, receiving large sums, particularly when out in the field? How much do they pay the engineer, in the first place, to get there? What talent does many of the resident engineers possess? How many pupils do they take, to make up large salaries, to the great injury of the real engineer, or surveyor? You will be surprised, Sir, when I tell you that a resident engineer, to my knowledge, not having many miles of railway to set out, actually had at one time four or five pupils, all supported by the company, and palmed upon the shoulders of one or two men who did the work—each pupil paying the resident engineer 100*l.* or 200*l.* per year for his instructions. This is a mere outline of the doings. I ask, what does the resident engineer pay the principal for *his* appointment, for in many cases he pays very high? It is not to be wondered at if he tries, in his turn, to get it back. Is it any matter of surprise that railway property has decreased in value? The public are aware of many of the facts I have stated, and have become cautious—not that the investment is bad, but that the expense of management is perfectly outrageous. If, therefore, it is wished to show that the public will be safe in putting money into railway stock, let the companies begin to purge the hive of the drones, and let the really efficient man be treated with respect, and paid for his labour. The losses companies have sustained by this harsh, and often very unjust, treatment of the useful men, are more than they are aware of. Men possessing talent never crouch, but are always firm and respectful. The system of espionage observed in all the departments of one great company is truly disgusting. No man of spirit could bear it; but many of your readers will perfectly comprehend what is meant. The whole system wants better regulating. Begin at the head and wash downwards. Employ those only who are useful. Let the accounts be more explicit—let every man keep a diary of his time and expenses, and be ready to show it when called upon—and let one general journal be kept for the whole; we shall then know what each man has been doing. No one to be appointed to any situation, unless competent to fill it, and not to be discharged without good and sufficient reason. If this, or some similar system, is adopted, the really good workman will have some chance, and will do his best for the company. At present, he cares not for their interest, as he knows he shall go the moment they can spare him, and some one will be retained who can present a barrel of beer, a dozen of wine, or a haunch of venison. Your directors also, who hang on year after year, should be changed—in short, if every railway was one single property, we should see the revenue better taken care of; and, until something is done to secure the interest of the investors, I would advise them to beware of their money. Restore confidence, and do things rightly, and railway property will soon become as it ought to be—a good investment; but the present incubus hung around it would swallow up the revenue of a kingdom—not anything, however profitable, could withstand it. I should like to see a list of the persons employed, from time to time, presented by any company to the public, stating what their services were, and why they were discharged, or why retained. I am sure it would tell a tale that would make many of our great engineers blush.

Cardiff, Oct. 23. ONE WHO HAS STUDIED RAILWAY DOINGS.

INTEREST ON RAILWAY CALLS—THE CORNWALL RAILWAY.

SIR,—It was with some surprise that I observed a notice in your last week's Journal, page 490, that the directors of the Cornish Railway had given notice that henceforth, or, at least, for the present, interest would not be allowed on the calls paid, which has heretofore been the case. I do not understand this, and it affords only additional evidence of the proper view taken by you, or some of your correspondents, some time since, when treating on the interest so paid being absolutely a diminution of or abstraction from the capital; but, in the present instance, the principle having been acted upon of paying interest on the calls, the directors, without calling a meeting, or taking the sense of the proprietary, determine among themselves to take away that boon, or inducement, which was held out (fallaciously I admit) of the shareholders receiving interest on the capital they had subscribed. I am not much surprised at the acts of directors, if that powers so unlimited be vested in them—that of paying interest, or withholding it, as they may deem fit; but surely the shareholders will not tamely stand by and allow such a course to be pursued, without calling upon the directors to show the powers under which they act. I think that the most prudent course would be for a public meeting, to be held of independent shareholders in the various railway undertakings, and to determine on enforcing strict and rigid accounts of the application of their capital, the cost of management, a strict investigation of the appropriation of the costs, or expenses, to the several accounts, as capital, plant, &c., and satisfy themselves that the dividends said to arise from profits are actually such, and not taken from the capital. This, however, is another question from that to which I wish to draw attention, which is simply whether the directors of any company have a right to pay interest, or withhold it, whenever it seems to them meet, without consulting the wishes, or the interests, of the body of shareholders at large. A RAILWAY SHAREHOLDER.

EARTHENWARE PIPING.

SIR,—In reply to the question of your correspondent, "P. W. K.," in last week's Journal, tubes made of clay, of similar quality to that used for making stoneware, are very generally used, in parts of Germany, for conveying water to supply towns and villages from neighbouring springs, in the same manner as cast-iron is used in this country, and the water is very pure and tasteless. The method of joining these tubes, which are about 2½ ft. long, is by a spigot and faucet joint—the spigot, being conical, is lapped round with hemp, saturated with hot pitch and turpentine, mixed in such proportions as to be tough when cold. Tubes of the above description are capable of sustaining considerable pressure.—E. K.: *Oct.* 25.

INDIA-RUBBER FLEXIBLE PAVEMENT.—A patent has been secured by Mr. H. R. Fanshawe for a process of manufacturing India-rubber, combined by mechanical means with other suitable materials, forming a firm, substantial, and flexible pavement. We are not aware of the exact nature of the materials combined; but, as India-rubber is the basis of the fabric, we should expect it would be very similar to the Kamptulicon, notices of which we have so frequently inserted in the *Mining Journal*. The prospectus before us states, that it is the very best material that has hitherto been introduced for paving stables court-yards, basements, and footpaths, and for preventing the escape of unwholesome effluviæ from the vaults of churches, or other buildings exposed to the action of noxious gases. Where employed as a flooring material for stables, it offers great advantages, from its equal temperature, resistance of humidity, soft, elastic, turf-like feel, and non-liability to fracture and throw up sharp angles, as in bricks, stones, and Dutch clinkers. It effects also a great saving in litter, besides producing a degree of ease and comfort to the horse which has never yet been approached by any other material. It is devoid of smell, so elastic that it will not fracture with the heaviest blow, prevents noise in churches, &c., and is admirably adapted for prisons, hospitals, &c., as it is impervious to damp. It is manufactured, under license from the patentee, by Mr. Morris, Staple-street, Bermondsey.

COLE'S PATENT HIGH-PRESSURE AND EXPANSION DOUBLE-CYLINDER BEAM-ENGINE.—The expansion steam-engine, first introduced by Hornblower, is, we believe, generally acknowledged to be the most economical in fuel, indeed to a degree superior to any other description of engine; but, although successively improved by Woolf, Rennie, Hall, and, finally, by Craddock, there are still two drawbacks upon its general use—the large space which it occupies, and its heavy cost. These two objections it has been the object of the patentee to avoid; and the means he has adopted are simply placing the large, or expansion, cylinder immediately under the small, or high-pressure, one—the two pistons working through a stuffing-box on one piston-rod. This is now reduced to such simplicity, that to convert a common high-pressure engine into one on this system, little more is necessary than the addition of the extra cylinder and lengthening the piston-rod, which adds nothing to the area covered, and the expense is vastly more than counterbalanced by the saving effected. We give this description as we find it in the specification, and cannot help being struck with the close resemblance to the double-cylinder engine of Mr. Sims, of Truro, and patented some seven or eight years back. At all events, the principle is the same as to the expansion of the steam in a second cylinder, though there may probably be some differences in the details.

ELECTRIC TELEGRAPH LAWSUIT IN AMERICA.—A great lightning law-suit, between Morse, Kendall, and Co., and H. O'Reilly, is now being tried before the Federal Court, at Frankfort, Kentucky. The case is one of the most important ever contended for in the United States. Morse, Kendall, and Co., contended for an exclusive monopoly of the principle of electro-magnetism in its application to telegraphing in the United States. O'Reilly's counsel resist the claim, asserting that a general principle like electro-magnetism cannot possibly be made the subject of a patent, even if the claimants had discovered the said general principle. Both sides have employed the ablest counsel, and no less than three telegraphs, Morse's instrument, the Columbian instrument, and the invention of Dr. Stiernhiel, of Bavaria, have been put up in the Court, for the purpose of explaining telegraphic operations.—*Boston Journal.*

The North of Scotland Banking Company of Aberdeen, which was supposed to have suffered very heavy losses by the failure of a large manufacturing house there, and the embarrassment of other parties, has intimated a dividend of 2 per cent. for the half-year.—*Scotsman.*

STEAM TO INDIA AND CHINA, VIA EGYPT.—Regular MONTHLY MAIL (steam conveyance) for PASSENGERS and LIGHT GOODS to CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, and HONG-KONG.

THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY BOOK PASSENGERS and RECEIVE GOODS and PARCELS for the ABOVE PORTS by their steamers—starting from Southampton on the 20th of every month; and from Suez on or about the 10th of every month. 42

BOMBAY.—Passengers for Bombay can proceed by this company's steamers of the 29th of the month, to Malta, thence to Alexandria by her Majesty's steamers, and from Suez by the Honourable East India Company's steamers.

MEDITERRANEAN.—MALTA—On the 20th and 29th of every month. CONSTANTINOPLE—On the 29th of the month. ALEXANDRIA—On the 20th of the month.

SPAIN AND PORTUGAL.—Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, on the 7th, 17th, and 27th of the month.

ITALY.—Genoa, Leghorn, and Civita Vecchia, occasional trips—next departure 18th of November, 1848.

For plans of the vessels, rates of passage-money, and to secure passages, and ship cargo, apply at the company's offices, No. 122, Leadenhall-street, London; and 57, High-street, Southampton.

NOTICE TO SHIPPERS OF GOODS AND PARCELS, per PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY'S STEAMERS, to INDIA and CHINA.—GOODS and PARCELS sent direct to the company's parcel office, on or before 6 P.M., on the 17th of each month, are forwarded at less cost to shippers than when sent through any intermediate channel. Cases must not exceed 112 lbs. weight each, for Aden, Ceylon, Madras, Calcutta, and China; and 40 lbs. each case for Bombay. No package for India or China can, under any circumstances, be shipped at Southampton, unless it be cleared through the Custom-house, and placed alongside the steamer by noon on the 19th of each month. 43

Detailed particulars can be obtained on personal application, or by writing.
Parcel Department, 122, Leadenhall-street.

NEW ATMOSPHERIC RAILWAY.—NO LONGITUDINAL VALVE.—The CYLINDER may be constructed of CAST-IRON TUBES, of any convenient length—like the mains of gas or water pipes. Here an immense saving of expense will be at once effected.

These TUBES can be UNITED TOGETHER, perfectly air-tight, and a piston can be constructed to work therein—air-tight also. This accomplished, the inventor engages to preserve, for a motive-power, as perfect a vacuum as can be made; and he further engages to communicate this power, with little or no loss, from the inside of the cylinder to the outside, for the several purposes the same may be applied to—as for the PROPULSION of RAILWAY CARRIAGES—for the raising of water to heights not limited by atmospheric pressure—and, indeed, the APPARATUS will be FOUND AVAILABLE for very many other purposes,—CAPITALISTS' ATTENTION IS CALLED TO THE ABOVE. 44

No attention will be given to communications, except made through some London solicitor, of known standing in the profession.

*** Address "O. L. Z.," Post-office, Battersea, near London.

NEW ATMOSPHERIC APPARATUS, OR RAILWAY.
NO LONGITUDINAL VALVE.

The CYLINDER may be constructed of CAST-IRON TUBES, of any convenient length—like the mains of gas or water pipes. Here an immense saving of expense will be at once effected. 45

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No attention will be given to communications, except made through some London solicitor, of known standing in the profession.

*** Address "O. L. Z.," Post-office, Battersea, near London.

PATENT IMPROVEMENTS IN CHRONOMETERS, WATCHES AND CLOCKS.—E. J. DENT, 82, Strand, and 33, Cockspur-street, watch and clock maker, BY APPOINTMENT, to the Queen and his Royal Highness Prince Albert, begs to acquaint the public, that the manufacture of his chronometers, watches, and clocks, is secured by three separate patents, respectively granted in 1836, 1840, 1842. Silver lever watches, jewelled in four holes, 6 gs. each; in gold cases, from £8 to £10 extra. Gold horizontal watches, with gold dials, from 8 gs. to 12 gs. each. 46

DENT'S PATENT DIPLIEDOSCOPE,

or Meridian Instrument, is now ready for delivery.—Pamphlets containing a description and directions for its use 1s. each, but to customers gratis.

UNDER BRITISH AND FOREIGN LETTERS PATENT. CAPITALISTS are INVITED to INSPECT the SECURE and PROFITABLE INVESTMENT in HUTCHISON & CO.'S INDURATED and IMPERVIOUS STONE, Chalk, Sand, Plaster, Wood, and Carton-roof Sheeting WORKS. Paving in diamond courses, supplied at Calverly Quarry, Tunbridge Wells, at 6d. per foot super, perfectly compact and impervious. Other orders executed.—Also, *à la Maladrerie*, near Caen, France.—Chief offices, East Temple Chambers, No. 2, Whitefriars-street, London, where specimens and particulars may be seen.—Licenses granted also for Hutchison's Patent SAW FRAMES. 47

BOILER EXPLOSIONS.—TO ENGINEERS, MILL-OWNERS, AND OTHER PARTIES USING STEAM-POWER.

Mr. EDWARD WALMSLEY calls the attention of the above to a MODIFICATION of his PATENT APPARATUS for the PREVENTION of STEAM-BOILER EXPLOSIONS, which he has now fitted up at the under-mentioned places, and may BE SEEN in OPERATION at any time during working hours. It is simple, effective, inexpensive, and not liable to get out of order. 48

At Mr. Edward Walmsley's, Bankfield Mills, Heaton Norris, Stockport; Mr. Henry Gore's, machine-maker, &c., Lever-street, Manchester; Messrs. Thomas Grundy and Co.'s, machine makers, Preston.

MONEY.—MESSRS. KILLICK & CO. (late WINSTANLEY, KILLICK, & Co.), SHAREBROKERS, inform their friends and the public, they make IMMEDIATE ADVANCES, to any amount, on the deposit of English and Foreign Railway Shares, Scrip, and Debentures, upon exceedingly advantageous terms: they also BUY and SELL every description of STOCK and MINING SHARES, at much less commission than usually charged.—6, Bank Chambers, opposite Bank of England. 49

CALLINGTON MINES COMPANY.—At the Quarterly General Meeting of proprietors, held on Wednesday, the 25th inst., at the offices of the company, 44, Finsbury-square, London, it was

Resolved,—That the reports and accounts, now read, be received, adopted, and entered in the cost and transfer book.—Carried unanimously. 50

Resolved,—That the thanks of the shareholders be presented to the chairman and directors, for their able and judicious management of the company's property.—Carried unanimously.

CASCADE MINING COMPANY.—In consequence of the Meeting, called for Monday, the 23d inst., not having been regularly convened, Notice is hereby given, that a MEETING of the adventurers in the above mine will be HELD on Monday next, the 30th October inst., at the Queen's Arms Tavern, Cheapside, at Twelve o'clock precisely, to determine on the course to be pursued henceforth, and on other business, as expressed in the circular convening the same. 51

Great Marlborough-street, Oct. 24, 1848. WILLIAM SNELL, Purser.

GADAIR MINING COMPANY.—At a Meeting of the adventurers in the Gadair Mines, held pursuant to advertisement, at the Queen's Arms, Tavern, Cheapside, on Thursday, the 26th inst., 52

G. W. BLANCH, Esq., in the chair.

The notice calling the meeting, and the minutes of the preceding meeting, were read. A statement of the liabilities, and the amounts received on account of calls made, was also laid before the meeting.

It was resolved,—That the honorary purser be requested to call a special general meeting of the adventurers, to be held on Thursday, the 16th November next, for the purpose of forfeiting the shares of the several parties holding the same, on which the calls made, and becoming due on the 26th August last, and the 7th of Sept. last, should then remain unpaid, or taking such other measures as might be deemed expedient for the recovery thereof. G. W. BLANCH, Chairman.

The thanks of the meeting were given to the chairman.
R. ENGLISH, Honorary Purser.

LEWIS MINES COMPANY.—At the Quarterly General Meeting of proprietors, held on Wednesday, the 25th inst., at the offices of the company, 44, Finsbury-square, London, it was 53

Resolved,—That the reports and accounts, now read, be received, adopted, and entered in the company's cost and transfer book.—Carried unanimously.

Resolved,—That an expression of thanks be voted by the shareholders to the chairman and directors, for their energetic and careful management of the mine and property of this company.—Carried unanimously.

Resolved,—That the thanks of the meeting be presented to Mr. Johnson, for his gratuitous and kind attention to the interest of the company.

TAMAR SILVER-LEAD MINING COMPANY.—At an Annual General Meeting of the shareholders in this company, held at the offices, 44, Finsbury-square, London, on Thursday, the 26th inst., 54

P. N. JOHNSON, Esq., F.R.S. and F.G.S., in the chair.

The following resolutions were passed:—

Resolved,—That the reports and accounts, now read, be received, adopted, and entered in the company's minute-book.—Carried unanimously.

Resolved,—That a special vote of thanks be presented to Mr. P. N. Johnson—the shareholders feeling deeply indebted to him for the vast benefit which the company has sustained by the establishment of the smelting-works, and for his scientific and able management of this department of the company's property, and also for the constant care and successful efforts which he has manifested in conducting the general affairs of the company.—Carried unanimously.

Resolved,—That the cordial thanks of the shareholders be presented to the chairman and directors, for their ability and energy in conducting the several departments of the company's property, and for the successful results thereby produced.—Carried unanimously.

WEST UNITED HILLS MINING COMPANY.—At a Meeting, convened by the purser, and held at the Queen's Arms Tavern, Cheapside, on Friday, the 27th October inst., pursuant to notice, 55

THOMAS CAMPLIN, Esq., in the chair.

The minutes of the preceding meeting and adjournment were read.

A communication from the purser, with reference to the financial affairs of the mine, was laid before the meeting, whereupon it was

Resolved unanimously,—That, in the absence of the Cost-book, and the several documents, or vouchers, connected with the mines, that the meeting stand adjourned until Tuesday, the 14th November proximo, to be held at the hour of Twelve o'clock, when the attendance of the purser be requested, or, in his absence, that the cost-book, and other papers be produced. T. CAMPLIN, Chairman.

The thanks of the meeting were moved to the chairman, and unanimously carried.

FOURDRINIER'S PATENT SAFETY APPARATUS, for PREVENTING ACCIDENTS IN MINES AND OTHER PLACES, WHEN THE ROPE OR CHAIN BREAKS. 56

By the ADOPTION of this INVENTION the LIVES of the WORKING MINERS may be PRESERVED, and the PROPERTY of the MINE OWNERS PROTECTED from the serious consequences of either of the following accidents—viz.:

1. From the men, or the load, being precipitated to the bottom of the shaft when the rope or chain breaks: in this case the apparatus is *self-acting*.

2. From either the men, or load, being drawn over the pulley: in this case, also, the apparatus is *self-acting*.

3. From the fearful consequences to men or load of a "whirl," or run: in this case the result is equally *certain*.

A COAL PIT, with the SAFETY APPARATUS ATTACHED to the CAGE, is daily at WORK near BURSLEM, in the STAFFORDSHIRE POTTERIES.

To inspect the apparatus, or to obtain any further information, application may be made to Mr. Edward N. Fourdrinier (the patentee), Cheddleton, near Leek, Staffordshire; or to Mr. Joseph Fourdrinier, 9, College-place, Camden Town, London—who are prepared to GRANT LICENSES for the USE of the PATENT.

PATENT GALVANISED IRON AND WIRE ROPE WORKS, *MILLWALL, POPLAR.* 57

ANDREW SMITH begs to inform the Mining, Railway, and Shipping interests, that he has obtained a PATENT for an IMPROVED METHOD of GALVANISING IRON, producing a much superior article at a considerable saving in cost—the improved process for galvanising wire rope, adding only £10 per ton instead of £20, under the ordinary processes. The rope is extensively used in damp situations, for mining and railway purposes, and for ships' standing rigging.

PATENT ALKALI COMPANY'S IRON PAINT.—This PAINT is the PRODUCT of a PATENT PROCESS, and possesses PECULIAR and VALUABLE PROPERTIES, not otherwise attainable. 58

Its colour (as at present produced) is a rich *purple-brown*. It is perfectly free from the deleterious qualities of white lead.

It surpasses all other paints over yet discovered, in point of *durability* and *economy*.

Two coats of this paint are more than equal to three of any other description.

From its chemical composition, it is pre-eminently adapted for covering *iron*; also *wood*, and *stuccoed*, or *brick buildings*. The process by which the base of this paint is produced, makes it impossible that any change should take place in its composition from atmospheric influence. Its identity with iron secures it from galvanic action, so fatal to the durability of lead and other paints on iron work.

It has been exposed on shipping to the action of sea-water, and of the sulphuretted hydrogen, so prevalent in sea-ports and tidal harbours, for more than three years, without change.

Its *cheapness* and *strength* render it peculiarly suitable for *iron bridges*, *roofs*, and *railings*, *farm buildings*, and *shipping*. It will also cover creosoted timber.

Price, by the ton, £25, delivered in London, exclusive of packages.

Agents will be appointed for the principal towns in the United Kingdom; in the mean time, orders may be addressed to the offices of the company, No. 20, Fenchurch-street, London. JOHN A. WEST, Secretary.

DESICCATING OR DRYING PROCESS—DAVISON and SYMINGTON'S PATENT.—To MANUFACTURERS and OTHERS requiring DRYING POWER, this PROCESS has been pronounced by those who have adopted it nearly three years, "as surpassing every thing before seen or tried, for efficiency, purity, cleanliness, cheapness, expedition," and, it may be added—safety. It has already been applied to no less than 15 distinct branches of trade, with equal and most perfect success, from the drying of the thinnest paper or the most delicate fabric, to the roasting of coffee, and such like substances; in other words, generating a continuous and controllable temperature, varying from that of the atmosphere to 500° and 600°, if required, and attended with many important advantages, not obtainable by hot flues, cockles, steam, hot-water pipes, &c. 59

For Licenses, and other particulars, apply to Mr. ANGUS JENNINGS, Sec., at the offices of the Patent Desiccating Company, 41, Gracechurch-street, City.

DESICCATED OR SEASONED WOOD—DAVISON and SYMINGTON'S PATENT.—For all BUILDING PURPOSES, JOINERY, CABINET-WORK, MUSICAL and other INSTRUMENTS, or wherever thoroughly SEASONED MATERIAL is required, for this and tropical climates, this PROCESS EFFECTS, in the SEASONING OF WOOD—more in weeks, than years can accomplish in the ordinary way. The gums are hardened, the fibre increased in strength, and shrinkage, as well as decay, prevented. The invention having been accurately tested, and adopted, by Her Majesty Honourable Board of Ordnance, and extensively by the leading architects and builders, in the erection of public and other buildings—by cabinet-makers and musical instrument-makers, amongst others, in the execution of the most expensive workmanship—the company feel themselves warranted in recommending the invention, as worthy of universal adoption, both as regards economy and efficiency. 60

For Licenses to use the patent, and every other information, apply to Mr. ANGUS JENNINGS, Secretary, at the offices of the company, 41, Gracechurch-street, City.

*** The company have works situated near the Commercial Docks, Rotherhithe, where wood, to any extent, can be sawn and desiccated.—Apply to Mr. Girling, manager, Grand Surrey Saw-Mills, Plough-bridge, Rotherhithe.

SIR WILLIAM BURNETT'S PATENT DISINFECTING FLUID, FOR THE DISINFECTION OF SICK-ROOMS, CLOTHING, LINEN, &c
THE PREVENTION OF CONTAGION.
THE PRESERVATION OF ANIMAL MATTER FROM PUTRESCENCE
THE PURIFICATION OF BILGE-WATER, CESSPOOLS, DRAINS, AND WATERCLOSETS, &c. 61

As a DEODORISING and PURIFYING AGENT it is the BEST, the CHEAPEST, and the MOST HEALTHFUL.—See Third Report of Metropolitan Sanitary Commissioners to the Queen, dated July 13, 1848:—"The operation [of cleansing cesspools by Sir Wm. Burnett's fluid] has now been performed in more than a THOUSAND instances, in every part of the metropolis, without, so far as we have been able to ascertain, any complaint as to the nature of the process, or of its being followed by any injurious consequences; on the contrary, there is positive and decisive evidence of more direct and immediate effects in the diminution of disease." * * *

IT DOES NOT STAIN the most delicate fabrics—an advantage possessed by no other preparation offered to the public for similar purposes.—Prepared solely at
SIR W. BURNETT'S FACTORY, MILLWALL, POPLAR.

Sold at the office, 53, King William-street, London-bridge; and by chemists, shipping agents, and others, in every town in the United Kingdom.

In imperial quart bottles, price 3s., bottle included.

*** The only genuine disinfecting Fluid is sealed over the cork with the inscription, "SIR WILLIAM BURNETT'S PATENT DISINFECTING FLUID," and secured outside the wrapper by an engraved label, with a similar inscription, and address of patentee.

RAILWAY AND OTHER IMPORTANT RECORDS, EFFECTUALLY PROTECTED FROM DAMP AND VERMIN.

Extract from the Appendix to the Second Report of the Commissioners on the Fine Arts.

"In 1839, I superintended the construction of a house, of three stories, on the Lac d'Enghein. The foundation of the building is constantly in water, about 19½ inches below the level of the ground floor. The entire horizontal surface of the external and internal walls was covered at the level of the internal ground floor with a layer of

SEYSSEL ASPHALTE,* 62

less than half an inch thick, over which coarse sand was spread. Since the above date, no trace of damp has shown itself round the walls of the lower story, which are, for the most part, painted in oil, of a grey stone colour. It is well known that the least moisture produces round spots, darker or lighter, on walls so painted. Yet the pavement of the floor, resting on the soil itself, is only about 2½ inches above the external surface of the soil, and only 19½, at the utmost, above that of the sheet of water. The layer of asphalte having been broken and removed, for the purpose of inserting the sills of two doors, spots, indicating the presence of damp, have been since remarked at the base of the door-posts."

The DIRECTORS of the SEYSSEL ASPHALTE COMPANY have much pleasure in recommending to the notice of ENGINEERS and ARCHITECTS the application of the ASPHALTE of SEYSSEL, as the *only effectual* mode of preventing damp in basement floors, and water from percolating through the ARCHES of a VIADUCT.

The arrangements of this company enable works of any extent to be executed with the greatest promptitude. I. FARRELL, Secretary.

SEYSSEL ASPHALTE DEPOT, STANGATE, LONDON.
ESTABLISHED 1838.

* This method has been adopted at the New Houses of Parliament.

THE PATENT OFFICE AND DESIGNS REGISTRY, *No. 210, STRAND, LONDON.* 63

INVENTORS will receive (gratis), on application, the OFFICIAL CIRCULAR OF INFORMATION, detailing the eligible course for PROTECTION of INVENTIONS and DESIGNS, with Reduced Scale of Fees.

Messrs. F. W. CAMPIN and CO. offer their services, and the benefit of many years' experience, in SECURING PATENTS and REGISTRATIONS OF DESIGNS, with due regard to VALIDITY, economy, and dispatch—assisted by scientific men of repute.

Also, in MECHANICAL and ENGINEERING DRAWINGS, whether connected with Patents, Railways, or otherwise, by a staff of first-rate draftsmen.

Application personally, or by letter, to F. W. Campin and Co., No. 210, Strand (corner of Essex-street).

PROFESSIONAL LIFE ASSURANCE COMPANY, Connecting the Clerical, Legal, Military, Naval, and Medical professions, and holding out advantages to the public not hitherto offered by any similar institution. 64

Incorporated.—Capital £250,000.

Established upon the mixed, mutual, and proprietary principle.

Rates essentially moderate.—Every description of policy granted. Immediate, survivorship, and deferred annuities; and endowments to widows, children, and others.—Every policy (except only in cases of personation) indisputable.—The assured permitted to go to and reside in Canada, Nova Scotia, New Brunswick, Australasia, Madeira, Cape of Good Hope, and Prince Edward's Island, without additional premium.—Medical men remunerated for their reports.—Loans granted on real or personal security.—One-tenth of the entire profits appropriated for the relief of the assured while living, and of his widow and orphans.—Annuities granted in the event of blindness, insanity, paralysis, accidents, and any other bodily or mental affliction, disabling the parties. Persons of every class and degree admitted to all the advantages of the corporation.—Rates for assuring £100 at the age of 25, 35, 45, and 55, respectively—namely, £1 14s. 6d., £2 5s. 6d., £3 4s. 3d., and £4 18s. 6d.

Prospectuses, with full details, may be had at the office.—Applications requested from parties desirous of becoming agents. EDWARD BAYLIS, Actuary and Secretary.

Offices, 76, Cheapside, London

CURE OF STAMMERING.—"Some remarkable CURES have recently been made in cases of STAMMERING, and DEFECTIVE ARTICULATION, by Mr. HUNT, of 224, REGENT-STREET, who is known to the public for the energy with which he has devoted himself to remove the defects of utterance. Several of these cures have been effected where all remedy appeared hopeless."—*Times*, August 1, 1848.—Mr. Hunt may be consulted at the above address until the end of November, and intends resuming his residence for the season early in February next. 65

STEPHENS'S DYES FOR STAINING WOOD as a SUBSTITUTE FOR PAINT—For DECORATING CHURCHES, LARGE PUBLIC ROOMS and THEATRES, as well as PRIVATE DWELLINGS, giving the effect of oak, mahogany, or satin wood.

When economy in expenditure of material and time is of importance, these dyes will be found of the greatest advantage, as they give a rich colour to plain woods, while they reflect all the beauty of the natural graining, which is so superior to imitations by art, and, at the same time, avoid the disagreeable smell and deleterious consequences of paint.

The DYES, or STAINS, are prepared and sold by HENRY STEPHENS, 54, Stamford-street, Blackfriars-road, London, in bottles of 6d. and 1s. each, and at 8s. per gallon.—They may be obtained in powder at 8s. per lb., which dissolves in water to form the liquid, and 1 lb. will make one gallon of grain. Sold also at the office of *The Builder*, 2, York-street, Covent-garden, London; also, by Hopkins and Purvis, Greek-street. 66

N.B.—The trade supplied.

Also his COMPOSITIONS FOR WRITING WITH STEEL PENS.

STEPHENS'S WRITING FLUIDS compose the most splendid and durable colours, and the most indelible compositions which art can produce. They consist of—

A BLUE FLUID, changeable into an intense black colour.

PATENT UNCHANGEABLE BLUE FLUIDS, remaining a deep blue colour. Two sorts are prepared—a light and dark blue.

A superior BLACK INK, of the common character, but more fluid.

A superior CARMINE RED, for contrast writing.

A liquid ROUGE CARMINE, for artists and contrast writing, in glass bottles.

A carbonaceous RECORD INK, which writes instantly black, and being proof against any chemical agent, is most valuable in the prevention of frauds.

A liquid MECHANICAL and ARCHITECTURAL DRAWING INK, superior to Indian Ink.

MARKING INKS for linen; select STEEL PENS; INKHOLDERS.

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